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League Meeting Will Single Out Sales Problems

New York Sessions Oct. 4-6
Designed To Provide
More Dealer Aids

NEW YORK CITY—Discussions of today's problems in the merchandising of household electrical appliances and air conditioning, and the part that electrical leagues can play in helping to solve them, will highlight the open sessions of the fourth annual conference of the International Association of Electrical Leagues here Oct. 4 to 6.

The conference will be held in the auditorium of the Electrical and Gas Association of New York, Inc.

Opening session on the morning of Oct. 4 will consist of a symposium on the individual problems of the different branches of the electrical industry, and how these are being met through cooperative action within the national industry organizations, and through joint action between them and local associations.

Symposium speakers will include C. W. Kellogg, president of Edison Electric Institute; Matthew Porosky, vice president of National Electrical Manufacturers Association; J. G. Johannessen, chairman of the executive committee of National Electrical Wholesalers Association; Earl N. Peek, president of National Electrical Contractors Association.

Merchandising problems of individual appliances will be discussed beginning at the first day's afternoon session, which will be chairmanned by Ralph Neumuller, executive vice president of the Electrical & Gas Association of New York.

"Electric Ranges and Water Heaters Must Still Be Sold" will be the topic of a discussion by J. E. Poteat, manager of the water heater and range section of General Electric.

"Today's Problems in Selling Electric Refrigeration and How the Leagues Can Assist" will be outlined by C. R. D'Olive, manager of the household appliance division of Stewart-Warner.

"What the Leagues Can Do in Developing Today's and Tomorrow's Washer and Ironer Market" will be explained by W. N. Gallagher, president and general manager of Automatic Washer Co.

"Pathological Effects of Air Conditioning" will be brought to the attention of league managers by Dr. Albert G. Young, medical director of Corey Hill hospital, Brookline, Mass.

At the opening session on Oct. 5, electrical equipment merchandising (Concluded on Page 12, Column 2)

'Home Appliance Week' Planned In Chicago

CHICAGO—This city's first "Home Appliance Week" will be held Oct. 30 to Nov. 4 under sponsorship of the Illinois Radio & Electrical Dealers Association. Highlight of the week will be displays of appliances, radios, and other electrical home equipment, together with entertainment and consumer educational features, in the exhibition hall of the Stevens hotel.

Plan of the association is for dealers to tie-in with the promotion by staging special sales and other events in their stores, and by offering free tickets for admission to the main exhibition at the Stevens. Stores will be given standard display streamers, counter cards, etc.

Participation by enough manufacturers and distributors to assure success of the exhibition already has been pledged, Executive Secretary J. G. Strader of the dealers' association said.

With this show as a start, it is the hope of the association to initiate (Concluded on Page 11, Column 3)

To Kelvinator



CHARLES T. LAWSON

Lawson Teams Up With Pierce Again

DETROIT—Charles T. Lawson has been appointed sales manager of Kelvinator household appliances, the announcement being made last week by Frank R. Pierce, general sales manager for the Kelvinator division of Nash-Kelvinator Corp.

Mr. Lawson, who until recently was household sales manager for Frigidaire, will have charge of all Kelvinator and Leonard refrigerator, range, water heater, washing machine, and ironer sales.

He has been identified with the electrical appliance business for more than twenty years, starting in the engineering department of Westinghouse after being graduated from Virginia Polytechnic Institute where he had received a degree in mechanical and electrical engineering. In 1917 he was transferred to the sales section of the company, and in 1921 he left to go to Dayton, Ohio as sales manager for Dry-Fan Electric Co.

Eventually he became vice president of this company, and when it was taken over by General Motors Corp. in 1927, was made general sales manager. In 1932 he joined Frigidaire, and since 1934 had been household sales manager.

During the World War Mr. Lawson served with the U. S. Marine Corps as captain of the 2nd Division, A.E.F.

Carrier Will Reopen Washington Branch

SYRACUSE, N. Y.—The reopening of a branch office at Washington, D. C., has been announced by E. T. Murphy, vice president in charge of marketing, Carrier Corp.

Herbert Peacock, previously manager of the Washington office for six years will resume his former responsibilities at 927 Investment building. During Mr. Peacock's 17 years' experience with Carrier he has handled the company's engineering and installation activities in Buenos Aires, Detroit, and Cleveland. For the past year he has been in charge of Carrier work on the Pacific Coast.

Besides government interests related to air conditioning, refrigeration and heating, the new branch office will also serve industry in Virginia and southern Maryland. United Clay Products Co. will continue to serve as the Washington distributor for Carrier equipment.

August Refrigerator Taxes Double Those of 1938

WASHINGTON, D. C.—Excise tax collections on household mechanical refrigerators during August of this year amounted to \$1,004,409, more than double the \$418,762 collected in the same month last year, the U. S. collector of internal revenue office reports.

Dealers Explain Why They Like Trade-In Plant

Credit Rebuilding Service In Philadelphia With Widening Market

By Robert M. Price

PHILADELPHIA—Appliance dealers here, particularly department stores, are for the most part quite enthusiastic about a plan that at last gives them an opportunity to make a profit item out of reconditioned household electric refrigerators. The plan is made possible through the reconditioning service offered by the Associated Refrigerator Plant, Inc. here, a firm which sells reconditioned boxes outright to dealers, or reconditions at a flat rate the boxes which dealers take in trade.

A survey of some of the Philadelphia dealers making use of the service revealed that they welcomed this chance to remove the profit drag caused by handling trade-ins themselves. The supply of good used refrigerators also opened up an entirely new market, it was reported, and as the average mark-up on reselling the boxes is around 40%, cooperating dealers are making a bid for this business, being assured of good returns for their sales efforts.

Most attractive feature of the plan, dealers report, is that the reconditioning plant takes over both the reconditioning and the service of the trade-ins, thus removing a double headache from an increasing replacement business.

The reconditioning plant offers two plans to the dealer, each of which is based on a "blue book" schedule of trade-in allowances. In the first plan the dealer pays the reconditioning plant a flat \$20 rate for a complete reconditioning job on electric refrigerators that he has taken in trade. In the second plan (Concluded on Page 11, Column 2)

Dealers Force Distributors To Take Action, and 'Shopping Service' Makes Dealers Respect Code, So Retail Prices Hold Up In Los Angeles

LOS ANGELES—Retail prices on electric refrigerators and other major appliances are being maintained in the Los Angeles metropolitan area, and excessive icebox trade-ins have been held in check, according to claims made by the Retail Furniture Association of Southern California, which claims that its program of price maintenance and fair trade practices has been more than 95% effective.

The association is composed of furniture dealers in the area, and some 35 of the larger major electrical appliance dealerships.

Some four years ago when the problem of retail price instability—price cutting, special discounts, trade-in problems—began to trouble the Los Angeles appliance dealers, some of them got their heads together and decided that some sort of cooperative activity would be needed.

They finally sought the assistance of the Retail Furniture Association of Southern California, which had won a reputation for its work in bringing fair trade to the furniture and floor coverings trades. A drive to bring fair trade practices on gas range merchandising was the first step, and this proved so successful that a similar type of activity on electric refrigerators soon followed.

In describing the activity, Phil Battelle, managing director of the furniture association, states:

"The basis of our entire operation is the shopping and policing service which develops factual information about conditions and dealer opera-

REA Financing of Locker Plants To Face Court Test

CAMILLA, Ga.—Legal action to prevent construction of an REA-financed cold storage locker plant by the Mitchell County Electric Membership Corp. was instituted here when an injunction was filed to prevent REA from loaning money to the cooperative for construction of the proposed plant.

The action was brought by C. B. Galloway, as a member of the Mitchell County cooperative. Restraining order was issued by Judge W. M. Harper of Americus, Ga., after B. C. Gardner of the Mitchell Superior Court had been disqualified by reason of having REA power lines on his farm.

Hearing on the injunction was scheduled to be held Saturday, Sept. 23. Notice of the injunction and a copy of the petition have been filed with REA officials.

Mr. Galloway brought action against the Mitchell County Electric Membership Corp. to prevent it from lending money to the Commodity Cold Storage Association for the construction of a freezer-locker type store.

In his petition, he asserts that the "REA has no authority to engage in any other activity than the construction of rural power lines, and cannot, therefore, lend money for the construction of a cold storage plant."

Construction of the food processing center here is scheduled as the first of a series of such plants to be erected throughout the country by REA with the aid of its new appropriation. Purpose of the plan is to provide adequate food preservation facilities for people living in rural communities where such facilities have heretofore been unavailable.

Under the arrangement, REA contributes up to 80% of the financing of these plants, with the remaining 20% to be raised by local subscription.

The U. S. Comptroller General ruled several months ago that it was within the authority of REA to finance locker plants and other such community projects.

Oakland Dealers Outlaw 2-For-1 Appliance Deals

Combination Sales Called Incentive To Wave Of Price Cutting

OAKLAND, Calif.—Use of "combinations" in the promotion of household electrical appliances has been outlawed by members of the Appliance Dealers Protective Association of Alameda and Contra Costa counties as a practice tending "to undermine the public's confidence in price structures" and leading to "unbridled and destructive competition among distributors and retailers."

At a meeting last week, members of the association voted not to handle combination deals of any type unless they have the association's approval.

In practice, this immediately rules out arbitrary combinations such as radios and clocks, washing machines and clothes hampers, ranges and groceries, etc. Borderline cases, such as refrigeration combinations including food containers, will be discussed by the association before action is taken one way or another.

In the case of individual dealer promotions, the secretary of the association, Guy W. Wolf, will assume responsibility of passing on them in confidence prior to their announcement by the store.

Resolution adopted by the dealer association relative to combination appliance deals reads as follows:

"Resolved by the Appliance Dealers Protective Association of Alameda & Contra Costa Counties, that the use of 'combinations' in the promotion of household appliances tends to undermine the public's confidence in the arrangement, REA contributes up to 80% of the financing of these plants, with the remaining 20% to be raised by local subscription.

The U. S. Comptroller General ruled several months ago that it was within the authority of REA to finance locker plants and other such community projects.

Bill To License Cooling Installers Defeated

MADISON, Wis.—The Gawronski bill, No. 456, S, providing for the licensing of persons engaged in the construction, installation, alteration, and maintenance of air-conditioning systems, was killed Sept. 19 in the state assembly by a 49 to 34 vote. The measure had previously passed the senate by a 27 to 1 vote.

Commercial Sales Gain Big In Georgia

ATLANTA—Sales of commercial refrigeration equipment in Georgia Power Co. territory for the first eight months of this year totaled \$142,438.98, less than \$2,500 short of the quota for the entire year and 38.4% ahead of the quota for the year so far.

Ventilating equipment sales during the eight months amounted to \$48,674, when the year's quota was but \$47,390. Commercial cooking and heating equipment sales for the period were \$22,495, and water heater sales were \$8,058.

Kramer Trenton Co.'s New Name of Coil Firm

TRENTON, N. J.—Kramer Trenton Co. is the new firm name of Trenton Auto Radiator Works, manufacturer of Kramer refrigeration and air-conditioning equipment, according to a charter amendment filed Sept. 16 with the office of the Secretary of State of New Jersey. Nathan Kramer is president of the company, and Israel Kramer is secretary-treasurer.

Code of Price and Trade-In Practices Plus Special Franchise Work To Hold Prices Up

(Concluded from Page 1, Column 4) the shopper's report, are illustrated.

Chief provisions of the code of ethics on refrigeration adopted by members of the Retail Furniture Association of Southern California are that "manufacturers . . . should establish and enforce the maintenance of retail prices . . . in accordance with the laws of the state of California" although exceptions are permitted to bona fide employees of the dealers or utilities, and purchasers of two or three units for a multiple dwelling (limited to a 10% discount), and purchasers of four or more units at one time, to get discounts in accordance with a manufacturer's schedule.

That there be no trade-in allowances in excess of \$3 on any wooden icebox on the purchase of a mechanical refrigerator, and that the National Market Index be used as the basis for all other trade-ins. Text of the code follows:

Revised 1939 Program On Refrigerators

FOREWORD

In an effort to place the selling, merchandising, and advertising of electric and gas refrigerators on a sound business-like and ethical basis, eliminate chiseling and unsound practices, an industry Code of Ethics has been developed, and is presented below, becoming effective in the Counties of Los Angeles, Orange, San Bernardino, and Riverside April 1, 1939.

(1) APPLIANCE DEALER DEFINED

A retail appliance dealer is defined as a dealer doing business in a regular store building, who actually carries a stock of not less than three new electric or gas refrigerators for retail sales, and not as a subterfuge for gaining recognition as an authorized dealer, and does not resell to other dealers or allow appliances to get into the hands of so-called "fake flat" or other unethical or illegitimate dealers. He must operate under a city license, be required to make State sales tax returns and payments, and identify his establishment by proper signs.

(2) RESALE PRICES

(a) The retail price of a refrigerator is defined as the cash price of the appliance delivered and connected to an outlet. No electric wiring or outlet, cabinet or carpenter work, or other services, in the installation of an appliance shall be furnished by a dealer or salesman at less than actual cost of such installation service, or materials.

(b) The manufacturers and distributors of electric and gas refrigerators should establish and enforce the maintenance of retail prices on

their respective products in accordance with the Laws of the State of California, relating to fair trade and unfair practices. All electric and gas refrigerators are to be sold at the established retail prices, except in the specific instances listed below.

(3) EXCEPTIONS TO ESTABLISHED RETAIL PRICES

(a) Employees of electric and gas utilities engaged in advertising and promoting the sale of electric and gas appliances. Bona fide employees of the utilities may be given a discount of 15% from the retail price, if, as, and when such purchase is approved in writing by an authorized utility official as a purchase for installation in the utilities employee's own home.

(b) Employees of the dealer's own organization, or employees of the manufacturing company as defined in the written policy of the manufacturing company, or affiliated companies.

(c) Any purchaser placing a bona fide order for two or three refrigerators for delivery at one time to, and installation in, any apartment house or multiple units that the purchaser owns, operates, or controls. Such purchaser may be allowed a discount of 10% from the retail price. This discount is not allowed to apply on the sale of two or more refrigerators for use in a private home. This is intended to eliminate the pooling of orders by two or more purchasers for securing such discount.

(d) Any purchaser of electric or gas refrigerators in quantities of four or more to be delivered at one time, and bona fide repeat orders. Such purchaser may be allowed a discount as outlined by each factory representative or distributor, which discount is to be given on purchases for delivery to and installation in any apartment house or multiple unit property that the purchaser owns, builds, operates, or controls.

(e) Purchases made under bids for municipal, county, state, federal, or school use.

It should be particularly noted that the exceptions above make no provisions whatever for discounts to contractors and builders for a single home; nor for motion picture studios; nor for buying or cooperative associations; nor for members of the clergy, army, or navy; nor for municipal, county, state, or federal government employees; nor for any purchaser of any kind, except the specific classifications mentioned above.

(4) TRADE-IN ALLOWANCES

(a) No trade-in allowance shall be given, directly or indirectly, by a dealer or salesman to a customer buying a new electric or gas refrigerator for any used wooden icebox, in excess of \$3.

Exceptions—If a dealer or salesman is offered in trade an obviously

valuable metal icebox, he should limit the allowance on the used metal icebox to an amount that will assure 33 1/3% or more gross profit on its resale. No trade-in allowance or other concession should be given to any customer to whom a discount is given.

(b) If a trade-in is offered on a used electric or gas refrigerator in operating condition, the trade-in allowance made shall be the allowance quoted in the National Market Index book. No other figure shall be quoted with the following exceptions.

Exceptions—It shall be permissible for a dealer or salesman to grant the customer an additional allowance of \$3 above the figure quoted in the National Market Index book on all refrigerators listed in this book with a trade-in allowance of \$2 or under, if the dealer or salesman feels justified in granting this additional allowance.

Also, it will further be permissible to grant an allowance of \$5 above the figures quoted in the National Market Index book on all refrigerators where the trade-in allowance figure shown is over \$20.

The maximum trade-in allowance which a dealer can allow on any electric refrigerator not listed in the National Market Index book, shall be the trade-in allowance of a _____ (Manufacturer insert name of own make of refrigerator) refrigerator of the same model year and size, with the exception that it will not be permissible to grant any of the additional allowances over and above those quoted in the National Market Index book.

The above trade-in allowances do not apply to refrigerators less than two years old where the customer desires to exchange the refrigerator with the dealer from whom the customer originally purchased same, in which case said dealer shall make any allowance he desires.

(5) UNAUTHORIZED PREMIUMS

No premiums not authorized and supplied by the factory representative, distributor, or public utility, shall be given to a purchaser of an electric or gas refrigerator.

(6) PAYMENT OF COMMISSIONS

Dealers should pay commissions only to salesmen who are regularly employed by the dealer. Salesmen who are qualified to receive commissions from franchised appliance dealers should at that time be devoting their sales effort exclusively to the dealer's business.

(7) PROGRAM VIOLATIONS

Any violation of this Code of Ethics will subject the offender to the penalties invoked by the California Fair Trade Act.

Note: It is not expected that these regulations will cover every situation that will come up in the electric or gas refrigerator business, but until such time as new regulations are approved, it is recommended that situations not covered herein be settled in accordance with the spirit of this entire program. If this is done, it will be possible to improve continually the possibilities for a more stabilized appliance business. This Code shall in no way apply to interstate transactions of any of the products herein before described, which shall not have lost their character as interstate shipments.

Fair Trade Franchise Agreement

THIS AGREEMENT, made and entered into this . . . day of . . . 1939, by and between

hereinafter designated as the "MANUFACTURER," and

hereinafter designated as the "RETAILER,"

WITNESSETH

WHEREAS, the MANUFACTURER maintains a place of business in the City of . . ., County of . . ., in the State of California, and is engaged in the business of manufacturing gas range appliances bearing the trademark, brand, or name of . . .

which products are in fair and open competition with others of the same general class produced by other manufacturers:

WHEREAS, the RETAILER, is engaged in the business of selling and distributing such products at

A Dealer Requests a Checkup With This Form . . .

REQUEST FOR APPLIANCE SHOPPING CHECKUP

Party To Be Shopped . . .

Street Address . . . Date . . . 193 . . .

Nature of Complaint . . . (Describe reasons for believing party is not observing Appliance Program)

Signed . . . By . . . Firm . . . Title . . .

Mail this request to the
Retail Furniture Association of Southern California
2155 East 7th Street ANgelus 13171 Los Angeles, Calif.

retail to consumers thereof in the City of . . .

2. The RETAILER hereby accepts said franchise and agrees to be bound by all the provisions of this agreement.

3. This agreement shall be effective only within the State of California and shall in no way apply to interstate transactions or to any of the products hereinbefore described which have not lost their character as interstate shipments.

4. This agreement shall be revocable by either party upon 10 days written notice to the other party hereto, but in the event of such termination no products in the hands of the RETAILER shall be resold by him otherwise than in accordance with the terms hereof.

5. Any violation of this agreement shall be deemed to constitute unfair practice and shall render the guilty party liable for damages and to restraint by injunction at the instance of any person injured thereby.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed on the day and year hereinbefore first above written.

By . . .
Retailer

By . . .
Manufacturer

. . . And Gets a Report on This Form

SOUTHERN CALIFORNIA APPLIANCE SHOPPING REPORT

Retailer Shopped . . .

City . . .

Party Interviewed . . . Date . . .

Were Window Displays Attractive? Yes No

How Did Appearance of Store Impress You? Good Bad

How Many Gas Ranges Did Dealer Display? . . .

How Many Refrigerators Did Dealer Display? . . .

What Lines of Gas Ranges on Display? . . .

What Lines of Refrigerators on Display? . . .

On What Merchandise Did You Center Your Interest? . . .

What Is the Regular Retail Price of This Appliance? . . .

What Price Did Dealer Quote? . . .

Did He Offer Any Concession For Cash? . . .

What Trade-In Deal Was Offered? . . .

REPORT

Report Below Complete Deal Offered and Trade-In Offered: . . .

Shopper . . . Date . . .

Retail Furniture Association of Southern California
2155 East 7th Street ANgelus 13171 Los Angeles, Calif.

He's an Old Smoother



Gov. Raymond E. Baldwin of Connecticut brings pressure to bear on a home-state product in celebrating Connecticut Day at the Golden Gate International Exposition in San Francisco Bay. Watching him take the wrinkles out of his coat with a G-E flatplate ironer (made in Bridgeport, Conn.) are three sons, Lucian, Raymond, Jr., and Tyler, and Mrs. Baldwin.

Commercial Refrigeration

Mechanical System Preserves Appearance Of Both Ice and Fish In Seafood Store

OAKLAND, Calif. — Mechanical refrigeration keeps ice "cold" in an unusual installation in the J. D. Feliz Sea Foods Store here.

"Fisherman's Wharf Sea Foods," as Mr. Feliz identifies his high class retail store, is located in a super market. There are 46 feet of refrigerated display cases with completely glass-enclosed sea food compartments fitted with conventional rear door openings.

Instead of flat bottoms or racks in the display compartments, the cases are provided only with 6-inch removable trays two feet wide and the length of the width of the case—about 30 inches. Bottoms of the white enameled trays are perforated for draining off waste ice and for any circulation that may be developed upward through the 8-inch layers of cracked ice ordinarily used in them. The commercially chipped ice varies in size from 1-inch pieces up to 3 or 4 inches.

Under the trays are refrigeration coils the full length of all cases, although at times sections of the same case may use mechanical refrigeration with minimized ice refrigeration for one type of sea food; the complete system being utilized with another type. One separate unit is mechanically refrigerated in the usual way to supplement the usual ice use, but this 10-foot case will hold a ton of fish in storage under the display.

Some types of fish are shown directly on ice; some foods, as oysters, prawns, crab meat, and fresh shrimp are displayed in small trays, almost completely imbedded to

the rims, in ice. Some types of kippered fish, to protect against an excess of humidity, are cut into suggestive sales pieces and wrapped in clear cellophane, other types are exposed in sides or slabs, not on ice, but on a dry tray not on ice, but in the same case without dividers.

A small dry refrigerated unit holds packaged sea foods, not as a matter of necessity, but to follow the identifying policy of cold foods, as with the smoked and kippered products, which would be self preserving over a long period.

In the combination refrigeration plan, according to Mr. Feliz, just enough moisture is carried, by placing and arranging the sea foods, for each product, and full, round flavors, as well as plump, fresh appearance and condition of products is maintained.

The chipped ice, because its melting point is regulated by mechanical refrigeration, does not melt readily and at all times retains a crystal clear condition. It is not frosty, nor white, nor "slushy," but firm. It not only supports the sea foods in actual contact and in trays without settling or sinking down of the products, but reflects a clear, sparkling condition like fine cut glass on a table.

Mr. Feliz uses a ton of crushed ice each week—but through the combined refrigeration plan he has identified his market to such a high degree that he sells fish every day of the week. It costs him an average of \$2.50 per week for operation of the mechanical unit.

New 'Home Freezing Chest' Has Blower Unit In Lid of Freezer Compartment

UTICA, N. Y.—"Home Freezing Chest" is the name given to a self-contained combination freezing and low temperature storage cabinet being introduced by Emil Steinhurst & Sons, Inc., and which is claimed to be suitable for institutional, farm, and home use.

The "Zero-Temp —10°" cabinet is about the size of an ice cream cabinet, and has two compartments, one housing the quick-freeze "well" and the other a wire basket storage compartment.

The quick-freeze well is circular in shape (to eliminate dead corners). A low temperature "holding" brine provides temperatures which will freeze from 30 to 50 lbs. of food at one time. A blower fan located in the cover of the quick-freeze well blows the air over the foods.

In the refrigerated storage compartment the heavy copper refrigerating coils are built into a heavy metal plated shell which is separated from the inner cabinet wall to permit full circulation over the coils and metal shell. There is thus no break in the corkboard insulated walls. The refrigerating shell and coils can be removed without disturbing the cabinet walls.

From 250 to 750 lbs. of food can be stored in this compartment at one time, depending upon the size of the chest and nature of the food. Storage shelves are of cadmium plated wire with the lower shelf raised from the bottom to permit free circulation of air.

An adjustable temperature control

permits the temperature in the freezing well to be lowered to —10 or —15° F. When freezing is completed, the temperature can again be raised to 0° F.

A dial-type low temperature thermometer on top of the chest permits readings on the storage compartment.

The fan motor for the freezing compartment fan is a 110-volt, 60-cycle single phase model, equipped with an individual rubber covered lead with plug-in connection, and located on top of the lid.

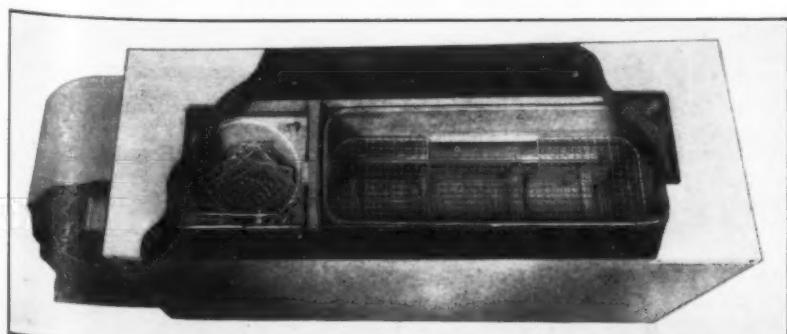
A hand shut-off valve arrangement permits the freezing well, when defrosting is required, to be cut completely off from the stored foods, so the temperature of the storage compartment will not be affected. With the circulating fan placed cornerwise in the freezing well, the well can be defrosted very quickly.

"Zero-Temp —10°" chests are built of copper-bearing galvanized steel finished with a special primer coat and covered with two coats of quick-drying automobile lacquer in a gray suede color. Standard models have white baked enamel tops, but polished stainless steel tops are available if desired.

Insulation is 5 inches of corkboard in the walls and bottom, and 4 inches in the top, all set in hot hydrolene cement.

Refrigerating machine and controls are housed under a "streamlined" ventilated hood. Machine and controls can be reached by simply lifting off the hood.

'Home' Freezing and Storage Plant



Revolving Smorgasbord Is Made With Center Section Cold Plates

NEW YORK CITY—Ghosts of the ancient Vikings doubtless would turn over in their graves if they could but see one of the latest contrivances of Scandinavian ingenuity—a revolving and refrigerated smorgasbord table—which is a part of the Swedish pavilion at the World's Fair here.

Top of this table is composed of a stationary central disc, two concentric and revolving rings, and an outer rim which also is stationary. The inner circular plate is the one which is refrigerated for the storage of cold foods. This portion of the table is made in two semi-circular sections, each of which is controlled by a separate thermostatic expansion valve.

The cold plates are connected to a Servel model J-50F 1/2-hp. air-cooled refrigerating unit which is mounted on a spring suspended base beneath the table and revolves with the table. Electric current for the machine unit is provided through slip rings located on the central post.

Lower part of the table is open to the kitchen, a projecting corner of which covers a 90° segment of the table's top. Condensing air for the refrigerating machine is drawn from and discharged into the kitchen.

The outer revolving table was designed to hold warm foods, and originally was provided with electric heating elements, but these were never actually used.

Revolving, Refrigerated, Self-Contained



Cold tables which provide tempting displays of traditional Scandinavian foods have come into prominence recently as a new and unusual application of commercial refrigeration equipment, and the one which is seeing service at the Swedish pavilion at the World's Fair is probably the last word. It is a revolving and refrigerated smorgasbord table, entirely self-contained, the Servel air-cooled refrigerating unit being integral with the table. Current for the refrigerating unit is supplied through slip rings on a post.

Switches are provided at regular points on the table so that the operator in the kitchen may stop the revolving rings at any point in order to remove empty platters and re-stock the table with food.

The revolving smorgasbord table was manufactured by A. B. Elektrolux of Stockholm on order from the Swedish commission. Elektrolux Svenska Forsaljnings A.B., a sub-

sidiary of A. B. Elektrolux, is distributor of Servel commercial refrigerating equipment in Sweden, and therefore requested that a Servel refrigerating unit be installed on the table at the Fair.

Assembly of the table and installation of the refrigerating equipment at the Swedish pavilion was supervised by the New York office of Servel, Inc.

THE SPIRIT OF '39

(To the tune of "Yankee Doodle")

These gents have really gone to town,
Their business volume's double!
They standardized on Henry, and
Have no more service trouble.

Give your trade more Henry jobs
And watch your sales-curve rocket.
They'll put a feather in your cap,
And money in your pocket.



H E N R Y V A L V E C O M P A N Y

1001-19 NO. SPAULDING AVENUE, CHICAGO, ILLINOIS

Most Complete Line of Refrigerant Valves, Dehydrators and Strainers—Also Valves and Forged Steel Fittings for Ammonia and High Pressure Industrial Requirements

Specialty Selling Ideas

Radio 'Kitchen Quiz' Brings Scranton Dealership Answers In Sales

By Robert M. Price

SCRANTON, Pa.—Those popular radio "question bees" have crept into the appliance field and are a new way to sales for the appliance department of the Globe Store, Westinghouse dealer here.

Called the "Kitchen Quiz," the program goes on the air twice weekly directly from the sales floor of this dealer. A half-hour program, 15 minutes is given over to cooking instruction and household hints. A home economist cooks the new dishes right before the store audience and relays the instructions to the radio audience. An announcer keeps up a running chatter that describes the dishes and adds to the appeal of the program.

When the cooking session is completed, the announcer, Bill Pierce, a popular man-on-the-street broadcaster, takes a portable microphone into the audience for an on-the-spot quiz of housewives gathered to get the cooking instructions.

He fires all sorts of questions at those he picks out for quizzing. Some of the questions have to do with cooking, but general information is required to outguess the announcer in his rapid-fire questionings. Many of the questions are sent in by listeners to the program, which is said to be highly popular with local women.

Promotion Agency's New Xmas Sales Stimulant Burlesques Insurance Forms & Examinations

CHICAGO—A "Merry Christmas Insurance" plan, something a little different in the way of a holiday sales stimulus, has been prepared by Belnap & Thompson, Inc., sales promotion agency, for use by any companies wishing to purchase this promotional scheme.

Under this plan, a company announces to each of its salesmen that it is going to insure his getting all the Christmas gifts he wants. This insurance doesn't cost the salesman a cent, for he pays the dividends on the insurance policy by his sales.

In other words, the salesman is credited with a certain number of "merits" for each sale he makes. These merits, in turn, can be cashed in for prizes listed in a special 64-page gift book supplied as part of the promotional material.

Mailing pieces in the campaign tie in real insurance talking points with which everyone is familiar.

With the announcement, an "application" for the insurance is sent to each salesman, who fills out this application for the amount he needs to obtain all the things on his Christmas list.

Feature of this application is a burlesqued version of the customary physical examination given regular

After the regular broadcast, a half hour is given over to discussing the different dishes prepared during the show or to questions that the visiting housewives may want to ask the home economist.

The store has found the program a good one, for the informality of the broadcast and the discussions "bring out" many women who can be turned into prospects for some appliance discussed or which is displayed on the floor. Slips are passed out to the audience to have an accurate check for salesmen in following up for further sales work. Also indicated on this slip is the appliance that the woman is most interested in buying.

Recipes discussed during the radio show are mailed free of charge to those writing in for them. This service leads to many new names for the active prospect list. Of course, during the progress of the show the appliances sold by this dealer are "plugged" by the home economist and the announcer.

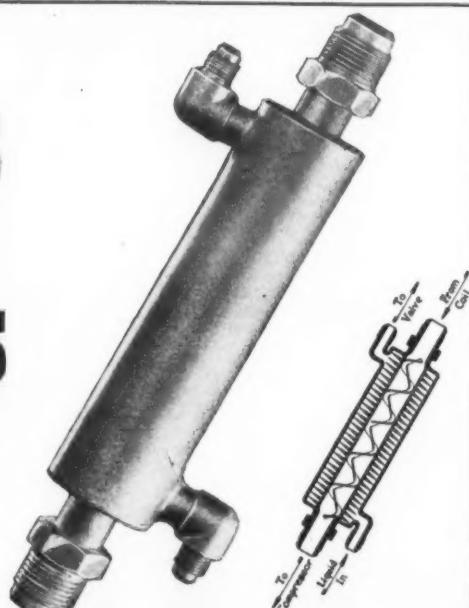
Frequently the announcer will let mention of the appliances slip into his quizzing and while the "aside business" is all in fun it adds up to identify the store and its appliances with cooking and with this popular battle of kitchen wits.

insurance applicants. This is termed a "Non-Medical Self-Examination," and is accompanied by the warning that "Merry Christmas Insurance will not be granted to anyone who cannot answer these questions in the affirmative."

Typical "exam" questions: "Are you physically able to put in eight hours a day at your present work? Are you mentally capable of telling a clear, understandable story about what you are selling? Are you big enough to take a turndown without letting it upset the rest of your day? Are you heavy enough to meet the common objections that prospects may bring up?"

"Have you a heart big enough to make you want to work a little harder to make this Christmas a merrier one for you and yours? Do your lungs function in such a way that you breathe easier when you've put in an honest day's work to reach your goal? Have you got enough gall to ASK a prospect to buy after you've given him plenty of good reasons why he should?"

After a salesman's application has been accepted, he is sent a "policy" that looks like the real thing. This even has a space in which he may keep a record of his sales.



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Who Says Men Can't Cook!

"WOMEN CAN'T COOK!"

"Well, men can!"
says Dennis B. Rawls,

latest member of the Ancient and Honorable Order of Coqui

AND TO PROVE IT HE PREPARED
A NEW RECIPE OF SHRIMP
A LA RAWLS ON HIS . . .

ELECTRIC RANGE

"But I'll say one thing! Men or women can cook on electric ranges and do it a lot better than on gas ranges. I can't keep me out of the kitchen—now I don't like my wife's cooking, but I just naturally like to fool around fixing up special dishes. A lot of other men claim this shrimp recipe, but it's mine. I brought it here from St. Augustine. Try it some time on an electric range. If you don't say it's the best shrimp you ever ate, I'll foot the bill!"

"I think the party who wrote that article for Esquire ought to take to the hills," says Mr. Rawls.

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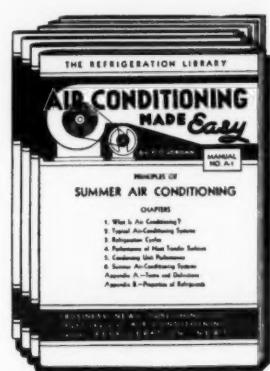
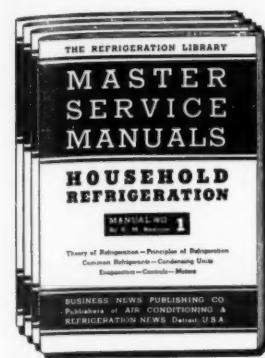
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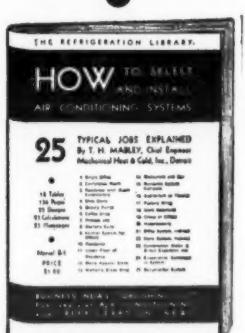
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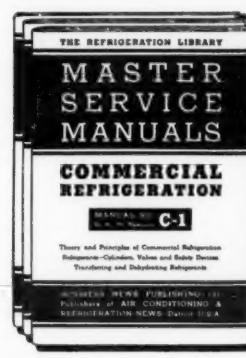
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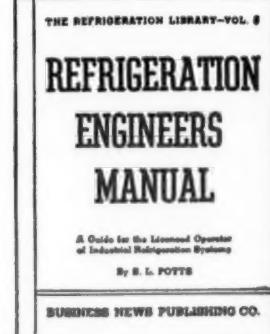
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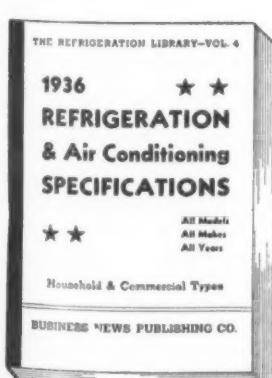
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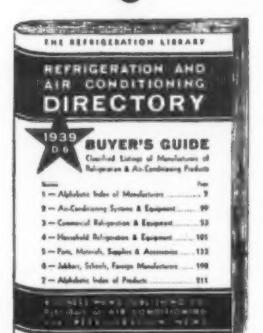
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'Key Accounts' Lose Prestige

THREE years ago the sales manager of one of the leading electric refrigerator manufacturers was addressing a large audience of distributors from all parts of the country. The new line had been shown, the promotion program exhibited, the peptalks and dramatic skits delivered. It was now time to get down to cases. A fireside chat was in order.

"This company," the sales manager declared, "has been in error. For some time we have gone along on the theory that the department store was not a particularly desirable type of outlet. We didn't want to see our merchandise bandied about in special sales. And above all, we wanted to protect our fine specialty dealers, the foundation on which we have built our extensive business."

Big Stores Respected By Women Customers

"But we realize now that this was a mistake. The department stores are now the key accounts, the open doors to metropolitan markets. We find our specialty dealers are bothered by the fact that their city's leading department store does not stock our brand. Women seem to figure if the Whosis Store doesn't sell it, there must be something wrong with it."

"The department store is a prestige account. We want you to get our merchandise in your city's leading store on whatever terms you can. You may lose on the deal. If you do, charge it up to promotion."

Have Department Stores Served Their Usefulness?

Last week this same sales manager confided that his distributors would hear a different story at their next convention. The department store had served its usefulness in building consumer acceptance, he insisted. It was no longer a "key account." And there were so many objectionable features about doing business with

some of them that it seemed no longer worthwhile to treat them so royally.

"Figures publicized by the National Retail Dry Goods Association show that department stores as a whole are losing money on their refrigerators, and have been for years," he continued. "Nuts. If they were losing money on any item that occupied so much floor space as refrigerators, they'd toss it out as soon as the management found out about it."

"They're simply juggling the figures in an attempt to pry out longer discounts. As a matter of fact, they're probably going to get shorter discounts in the future. They have served their purpose as prestige accounts, and their volume doesn't justify the margin some of them have been getting."

Reasons Why Margins May Be Reduced

This sales manager is not alone in the belief that department stores may have to be satisfied with less, rather than more margin. Conversation with other sales executives reveals the following considerations:

1. Utilities, which have customarily been receiving 2 or 3% less discount than department stores, are beginning to demand equal treatment. This differential can be justified on the basis of the cost of entertaining utility executives (department store buyers nearly all refuse entertainment, as a matter of store policy). However, utilities are pointing out that their sales volume is increasing, whereas that of the department stores is decreasing.

Increased Rural Income Interests Sales Executives

2. Metropolitan representation is not uppermost in the minds of sales executives currently. Rural distribution interests them more. They feel they have "a God's plenty" of display dealers in the cities; what they want is more of the kind that will drive out along the new rural power lines, and talk turkey to America's most subsidized class. Rising prices on agricultural products are strengthening this belief that specialty dealers who will go out after sales are needed, rather than those who depend on floor traffic.

Sears Type of Store Answer To Congestion

3. Department stores are not nearly so important as they once were in handling the "shopper" type of business. It is largely at their expense that Sears-Roebuck and Montgomery-Ward have made such long strides, with their conveniently located neighborhood stores. Downtown traffic and parking problems are driving customers more and more to do their trading at the big neighborhood units, with their free parking lots and less congested conditions.

All in all, it would appear that there will be less striving on the part of manufacturers and distributors to get their products on the floor of department stores appliance sections during the coming season. This, in turn, may usher in the following trends:

Foresee Trend Toward One-Line Departments

1. Department stores will turn more and more toward "one-line" merchandising operations, instead

They'll Do It Every Time . . . By Jimmie Hatlo



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of offering a potpourri of all the makes in existence. They will likely choose the line of the manufacturer that offers them the best deal, and concentrate on it. This, incidentally, may be one answer to their cry of "no profits in this business."

2. Private brands may come more and more into the picture.

This lessening of the pressure on distributors to get "prestige distribution" in department stores is no reflection on the latter; it merely is significant of changing trends in the merchandising of a product which has earned the right to strong public acceptance.

H. G. BOGART, JR.
Smith about the refrigeration industry and electrical appliances in general take inventory of themselves and the great possibilities of the industry for the future before arriving at any conclusions as hopeless as those expressed by Mr. Smith.

By all means let us bring to light examples of men who have been successful in this business and still are, both from the standpoint of income and added responsibility. I could start with my own organization by pointing out that at the present time two of our district managers and our general sales manager all were retail salesmen in the refrigeration business within the last 12 years. You could hardly tell these men that this was not a good business to be identified with. There are thousands of other examples like this throughout the country.

H. G. BOGART, JR.

LETTERS

Bogart Says Salesmen Have Lost Imagination

H. G. Bogart Co.
General Electric Distributor
217 Cherry St.
Toledo, Ohio

Editor:

The letter of Frederic M. Smith of Elwood City, Pa., published in your Sept. 20 issue, is tragic.

There are many "Frederic Smiths" still in the appliance business and many others have left it in the past year.

However, I do not feel as though Mr. Smith's letter should go unchallenged, because in my opinion, many retail salesmen might be influenced by his letter and become discouraged.

It is unfortunately true that many salesmen in the appliance business lose heart and become discouraged because of poor leadership in the organization which they represent.

Furthermore, it seems to me that many men selling electrical appliances today have lost the imagination and determination which many salesmen in this industry had a few years ago.

Any industry that produces products which are of a definite value and which raises the standard of living for people in general is bound to be a good business to be engaged in.

Any product which releases a woman's time for more profitable enterprise, enhances her health and, in general, increases her usefulness, just can't have a great deal wrong with it.

Too many salesmen lose sight of this fact and very few of them sell products on this appeal. Too many salesmen talk price and the shortcomings of their competitors, only to wind up by losing many prospective sales and finally coming to the conclusion that it is a poor business to be engaged in.

I haven't the least idea under what circumstances Mr. Smith was working, but I assume that they were not much worse than you would find most any place in the country.

I do urge, however, that other salesmen who may feel the same as Mr.

Dan Greenlee Still With Kold-Hold

Kold-Hold Mfg. Co.
238 Mill St.
Lansing, Mich.

Editor:

There is a slight error in the last issue of the News, and I just wanted to drop you a line to let you know that I am still very much with KOLD-HOLD.

On page 12 there is a publicity photograph of a group of individuals interested in frozen foods and the caption indicates that the writer had left this organization, to become associated with Walker's Fulton Fish Co.

No harm is done, of course, but I just wanted to make sure that there is no misunderstanding.

Thanks for including the picture of KOLD-HOLD's display booth, showing the display case and the other applications in the background.

DAN GREENLEE,
Vice President in
Charge of Sales

What Cooking Costs In Wheeling, W. Va.

Pittsfield Electric Co.
Pittsfield, Mass.

Editor:

In the Aug. 9 issue of AIR CONDITIONING & REFRIGERATION NEWS there appears an item about a survey of electric cooking costs made by the Wheeling, W. Va. Electric Co. The article states that the average is 83 cents per month.

As this figure is considerably below ours, we should like very much to get additional information on this survey. What is the domestic electric rate? How many kilowatt hours per month were used on the average?

Anything you can do for me on this matter will be very much appreciated.

NORMAN B. HOLLISTER

Answer: We queried the Wheeling Electric Co. about this and received the following reply from C. N. Porter, manager of residential sales:

"I am at a loss to understand how anyone could interpret the advertising of our check meter trials to arrive at an average cost of 83 cents per month."

"For your information I am attaching a tear sheet showing copy of the

Intelligent Economists Should Know Better

National Retail Furniture Association
666 Lake Shore Drive
Chicago, Ill.

Editor:

The editorial in your issue of Sept. 6, headed "Discounts for Dealers" and referring to the Twentieth Century Fund report strikes a most sympathetic note as we read it.

We have complained about other gross blunders in the Twentieth Century Fund study so it is only logical that we are happy to find those with a more impartial viewpoint noticing the same kind of mistakes.

All in all people with intelligence (and investigating economists are supposed to be intelligent) should know better.

ROSCOE R. RAU,
Executive Vice President
and Secretary

What Readers Say

1323 Brown
Des Plaines, Ill.

Sirs:

I'd like to tell how much I enjoy the AIR CONDITIONING & REFRIGERATION NEWS with all its up-to-the-minute information. I certainly am not going to miss a single copy if possible.

ROBERT HAWLEY

Roscoe E. Stewart Co.
Port Arthur, Tex.

Sirs:

Enclosed is money order for \$2.00, please continue my subscription on AIR CONDITIONING & REFRIGERATION NEWS, please do not let me miss any issues.

W. S. TERRY

416 Oak St.
Taylor, Pa.

Aug. 30, 1939

Sirs:

I have heard so much about your weekly newspaper that I want you to send me a free copy and tell me the cost of a yearly subscription.

JOSEPH J. ECKER

Box 1088
Carlsbad, N. M.

Sirs:

Thank you and your organization for my recently received Directory. It appears to be very complete and worthwhile. Just as soon as possible I hope to be able to renew my subscription to the News.

H. H. BOONE

Service Men's Problems

'Fight Harder and Work Harder Than the College Man, & Beat Him At Own Game'

Correspondence School Graduate Says Employers' Viewpoint Is shortsighted, But It Must Be Faced

228 Putnam St.
Hartford, Conn.
Sept. 19, 1939

Gentlemen:

Having just completed my R.A.C.I. course, making me a hopeful newcomer in the air-conditioning field, and incidentally a new subscriber to AIR CONDITIONING & REFRIGERATION NEWS, the letters published by R.A.C.I. students were very interesting to me.

I am 38 years old, and have confronted a few of the problems of the correspondence school graduate looking for a position, having taken two other courses in my life. This might indicate that I'm a sucker for correspondence courses, but in each case they offered something I wanted and therefore was sold before seeing the salesman.

However, not everyone who buys a correspondence course wants the course. Instead they want a "short-cut" to a bigger pay check. And during my 38 years, I've discovered that the only short-cuts to bigger pay checks are influential friends or relatives. Having neither, I've always had to go the hard way to get mine.

The other student is the one who takes his course, studies diligently, and hopes that he meets some employer who will recognize his true worth and give him the job with a golden opportunity.

Sounds well, and no doubt there are many deserving and ambitious men who take these courses, who dream, but forget the practical side. That is the employer's side.

Mr. Employer has thousands of intelligent and aspiring young and old men to pick from. Public school graduates, high school, college men, practical men, men with all kinds of experience, men willing to work for small salaries, men who are good talkers and know a lot (these are exceptional), men who know a lot but can't talk, men who can't talk and have nothing to say anyway. So whom to pick for his job?

Most employers are pretty sick of taking chances on bad propositions. So they try to get the best for the least. Not all college men are of the best material. Not all correspondence students are of the worst.

But there seems to be a feeling among employers that college men, if given an opportunity, will make good, and then don't take time to analyze, nor want to be bothered with any other type of man. Unless they have a dirty job that no one wants.

So in order for the correspondence student to make good he must fight harder and work harder than the college man. He has to beat the college man at his own game.

This is a fact, and no amount of talking or lamenting can alter the facts.

I recently sat before a sales manager for one of the major companies in this business, and as soon as the gentleman learned of my mission, he immediately and without further ado, informed me that his practice was to hire college men only. So, regardless of my qualifications otherwise, regardless of my experience, my industry, or my good looks, the interview was terminated.

out first having that bigger something put in his hand! Which means that he will never get it. No one is coming after him, no matter how good or how deserving he is.

True, there are a few men that have been called for, but only after they had arrived and didn't need any help. But the fellow who needs help never gets it without a fight from start to finish.

Maybe some of this is interesting, maybe not, and it's not particularly new. However, writing it has done my soul good, and I feel relieved and inspired to meet the next employer, fighting harder than the last.

I'm putting three letters in the mail with this, to employers I hope to face, and my advice to those who haven't tried writing as an inspiration, to jot down a few facts on paper and see how much bigger and wiser they feel.

L. G. LEGLER

Servicemen Cost Him?

W. E. Turner
Electric and Tin Shop
Repairing a Specialty
San Marcos, Tex.

Sirs:

Enclosed find check for \$1.00 for card as stated, I want information on all household and commercial refrigeration.

Also card as checked \$4.00. And commercial refrigeration as checked \$3.00.

W. E. TURNER
P.S. I must learn to service, service men have cost me a lot of money.

Vote For Manual A-6

2730 "E" St.
La Verne, Calif.

Sirs:

I would like a subscription blank to your paper AIR CONDITIONING & REFRIGERATION NEWS, and if possible a sample copy of it. I have seen a copy or two but have never had one to read over. I believe I would like to subscribe to it.

Also information regarding the Manuals published by your "Air Conditioning Made Easy" by F. O. Jordan. I happened to see a copy of Manual A-6 today and liked it very much.

FRED M. FORTNER

712 W. Grand Ave.
Perryville, Mo.

Sirs:
Inclosed find 20 cents for the April 26 copy of AIR CONDITIONING NEWS.

I missed that one.

JOHN J. MERTZ

**A "Package" Item—
Large Unit Sale—An
Ever Widening Market—
You Have all This with The**

**CURTIS
STORE and OFFICE
COOLER!**

ILLUSTRATION shows two Curtis Store and Office Coolers in the Canterbury Inn at the Merrie England Village, New York World's Fair 1939. This is only one of the countless applications for which this latest addition to the Curtis line of Refrigeration and Air Conditioning Equipment is ideal.

When you sell the Curtis Store and Office Cooler, you open up a vast new market for greater sales and profits. All classes of retail establishments, chain stores, offices, restaurants, banks and many, many others are demanding air conditioning. It has become a necessary factor in successful mer-

CURTIS
REFRIGERATION
AIR CONDITIONING & COMMERCIAL

CURTIS REFRIGERATING MACHINE CO.
Division of Curtis Manufacturing Co.
1912 Kienlen Avenue
St. Louis, Missouri

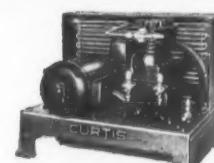


chandising and efficient office work.

It's a handsome, complete, factory designed, packaged air conditioner. Mechanically cools, dehumidifies, circulates and filters the air—adaptable for heating—easily and quickly installed and semi-portable. 3 and 5 ton sizes.

The Curtis line of Condensing Units includes sizes from 1/6 to 30 H.P. air and water cooled. Every Curtis product is precision engineered to deliver economical, efficient, care-free performance throughout an exceptionally long life.

If you're interested in profits, in increasing your sales, write to Curtis for complete information—today.



45 Air Cooled Units—42
Water Cooled Units 1/6
to 30 H. P.

You can CASH in
on this TIMELY
HELPFUL NEWS

Artic
(DU PONT METHYL CHLORIDE)
SERVICE NEWS
Use this coupon for information
you won't find anywhere else

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The R. & H. Chemicals Dept.
Wilmington, Delaware
District Sales Offices: Baltimore, Boston, Charlotte, Chicago,
Cleveland, Kansas City, Newark, New York, Philadelphia,
Pittsburgh, San Francisco

Gentlemen: Please send me the current issue of "ARTIC" Service News and put my name on mailing list to receive future issues.
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Service Methods

Servicing the Grunow Refrigerator Unit

Purging Methods & Replacing Float Valves Procedure; Diagnosing 'Failure To Start' & 'Unit Runs Too Much'

Editor's Note: Following information on servicing Grunow refrigerators is taken from both the official factory service instructions, and also from information furnished by men in the field who have specialized in work on Grunow units. First instalment appeared in last week's issue.

This information is presented along two lines, one part outlining some of the methods of checking and servicing the unit, and the other part diagnosing complaints and suggesting remedies.

Purging Methods

Purging is a very simple process when the following procedure is adhered to:

1. Make sure that the outer purge valve on the purge tool and the inner purge valve on the float or Carrene meter are open.

2. Stop fan from turning by blocking blades with a cloth. Do not bend blades. Never stop fan by grabbing blades while power is on the fan motor. Always stop refrigerator unit and let fan come to a natural stop.

3. Start unit and immediately stop it.

4. Repeat operation No. 3 several times until no more air is heard to come out of the purge valves.

5. Permit unit to run continuously.

6. Close outer purge valve.

7. When purge gauge reads from 1 to 3 lbs., purge for 3 seconds by opening the outer purge valve. Then tighten outer purge valve.

8. Make three more purges the same as indicated in operation No. 7 at intervals of 5 minutes.

Note: The float or Carrene meter and all tubes of the condenser-radiator have to feel extremely warm to the finger tips before the final purge is made. Their temperature has to be 105° F. or higher in order for the Carrene to vaporize sufficiently to give a proper purge.

The Carrene meter units will have to be purged more times than the float due to a Carrene meter, which is dry of Carrene, passing the air back into the evaporator. In other words, less air will be purged out of a Carrene meter at any one purge, therefore, more purges are necessary.

9. Close both outer and inner purge valves tightly.

10. Remove blocking from fan.

11. Set thermostat at Position No. 9, and close the refrigerator door.

12. At the end of 15 minutes running open the inner purge valve just long enough for the gauge to settle to a steady reading and then close again. Read head pressure. It should be approaching normal value.

13. Wait 15 minutes and repeat operation No. 12. If the head pressure is decreased from the first reading taken, it is an indication that the unit is purged and is not leaking. The head pressure should be very nearly normal by now.

14. Be sure the inner purge valve is closed tightly and remove purge tool.

15. Replace cap on purge valve making sure lead gasket is in place.

16. If, on a unit having a Carrene meter, all but the bottom tube on the condenser feels warm to the finger tips when the refrigerator is in normal operation, it indicates that the unit is not properly purged. That is, the condenser should have a gradual decrease in temperature from top to bottom; there should be no sudden break in temperature between tubes.

Servicing the Float Valve

It is unlikely that the float valve will ever require any service. But if a diagnosis indicates that the float is faulty, it may be removed by the following method:

1. Pull line cord out of wall receptacle.

2. Place magnet around float and plug magnet line cord into wall receptacle in order to raise float and drain it dry of Carrene.

3. Pull magnet line cord out of wall receptacle.

4. Disconnect the float from the liquid line at the flare nut connection.

5. After no more air is heard to enter the system, immediately loosen the suction line flare nut at the compressor. (This is to prevent the Carrene in the evaporator from running back down the liquid line.)

6. Disconnect the dehydrator outlet line at the flare nut connection at top of float.

7. Remove the three screws from the float supports. Now the float can be lifted off.

In replacing the float, care should be taken in making the flare connections; the unit should be tested for leaks and then purged in the regular way.

Diagnosing Imperfect Operating Conditions

Complaint 2. Refrigerator Does Not Start

(Continued from Sept. 20 Issue)

A. Line Cord Pulled Out of Wall Receptacle Or Not Making Good Contact. Check line cord at wall receptacle to make sure it is not loose or pulled out.

B. Fuse Blown At House Meter. Check fuse in circuit supplying refrigerator with power and replace if blown. If refrigerator has a light it should light if the line cord is plugged in and the fuse is not blown.

C. Overload Trip Button Popped Out. Check to see if overload trip button is tripped out. If it is, refer to Part 1, for possible causes. If it isn't, make sure it is making contact by pulling it out and pushing it in.

D. Open Circuit In Electrical System. Check wiring for continuity with circuit diagram and repair any open circuits.

Thermostat Control Wires Loose or Disconnected. Remove thermostat mounting plate from evaporator and pull thermostat out far enough to remove small cover of the control cord connections. The two wires should be held securely in place by the two screws.

E. Faulty Thermostat. Remove thermostat mounting plate from evaporator and pull thermostat out far enough to remove the small cover of the control cord. Short these two wires with a screwdriver and if the refrigerator starts this indicates a faulty thermostat and it should be replaced. This would occur if the thermostat bellows lost its gas.

Complaint 3. Refrigerator Runs Too Much

A. Poor Location of Refrigerator. Refrigerator should not be placed near stoves, hot water tanks, etc. Refrigerator should not be built in, or placed, in small pantries with poor air ventilation.

B. Thermostat Set Too Cold. Check food compartment temperature by placing an accurate thermometer in some liquid which has been in refrigerator for some time. If temperature is below 40°, the thermostat is set too cold. Set thermostat pointer back to a warmer position. If pointer is already set on the warmest operating position, then reset internal setting of thermostat.

C. Thermostat Bulb Loose in Clamp. Check bulb to see if it is loose in clamp. If loose, remove bulb and bend clamp downward. Replace bulb.

D. Faulty Thermostat. Eliminate the possibility of Complaints 3-B and 3-C. If food compartment temperature still goes below 40° and the refrigerator runs excessively, the thermostat is faulty and should be replaced.

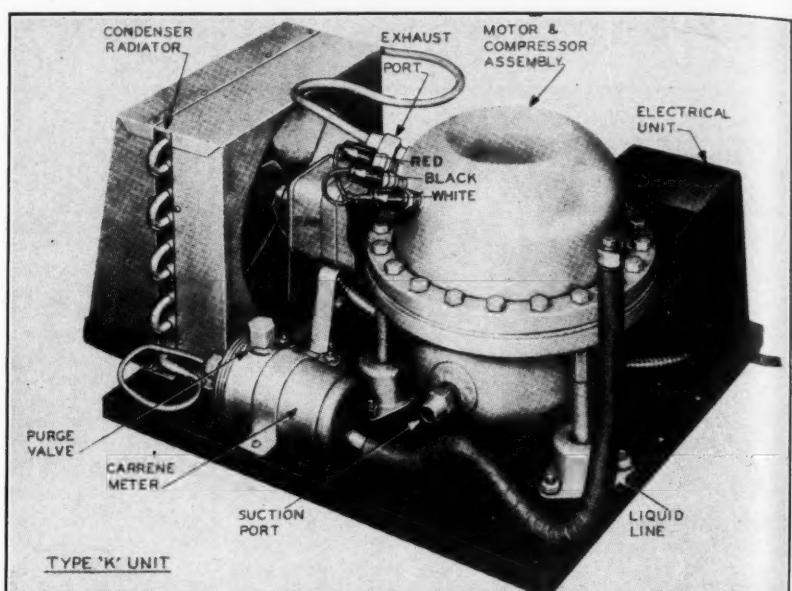
E. Poor Door Seal. Test door seal all the way around by means of a piece of paper or a dollar bill placed in the door when door is closed. If it is found that the paper pulls out very easily at any point, this indicates a poor door seal at this point. A good seal is indicated by a slight binding action as the paper is being pulled out.

If the hinge side of the door has a poor seal, place one or more (as necessary) hinge shims under each hinge. If the latch side of the door on the SD cabinets has a poor door seal, loosen the two screws holding the latch strike on the door jamb. Move strike back in toward food compartment about $\frac{1}{32}$ inch. Repeat if necessary. On the S and D cabinets remove one or more shims from under the strike.

I. Pinched Liquid Line at the Evaporator. Inspect liquid line by removing flare nut from evaporator.

J. Chemical Other than Carrene or Compressor Oil Being in System. Examine previous service records to ascertain whether any alcohol has been added to the system and whether the oil in the compressor

One of the Grunow Units



Type "K" Grunow refrigerating unit, using the No. 680 compressor. Type "J" unit is practically the same as type "K."

has been replaced with other than Grunow compressor oil. If alcohol has been added, drain entire charge and replace with fresh Carrene and fresh compressor oil.

K. Air in System. Air in the system gives a higher head pressure than normal and decreases the efficiency of refrigeration. Refer to Complaint 1-C.

L. Shortage of Carrene. Check the charge and add Carrene if found short.

M. Overcharge of Carrene. Check for overcharge by feeling of suction tube close to compressor flare nut after refrigerator has been running 10 minutes or more (refrigerator has been in operation up to this time). If suction tube is not warm this indicates an overcharge and the unit should be purged until the tube warms up.

N. Check Valve Stuck Open. If the check valve is stuck open, the compressor will give a long series of clicks a few seconds after stopping. The compressor should be changed.

O. Scrambled Charge. If oil and Carrene are scrambled in compressor, the refrigerator must be allowed to run 10 or 12 hours in order to boil Carrene out of compressor.

P. Leaky Float. Eliminate the possibility of all the other causes given under Complaint 3 before suspecting a leaky float. A leaky float causes a short off cycle, but the greatest proof of a leaky float is an extremely cold liquid line at the flare connection between the float liquid line and the cabinet liquid line when the refrigerator is running. If the liquid line does not warm up slightly as it should between normal operations of the float, then a leaky float is indicated and should be replaced. Be positive, though, that the float is leaky before replacing one.

Checking Charge on 1937 Type W Unit

Editor's Note: The following information was furnished by Jack Shinberg, onetime Grunow national service manager, who now operates the Grunow Factory Authorized Service Co. at Berkeley, Calif. Service men who have special questions about Grunow service work can write to the News concerning them, and Mr. Shinberg will answer as many of the questions as possible.

The following models all have identically the same amount of oil and Carrene as the evaporators and compressors were the same size: 53W, 63W, 58WD, 67WD, 68WD, 68WSD, and 83WSD.

On the above models with Carrene meter part No. 10953 the oil charge is 34½ ounces, and the full charge of Carrene in all models is 34 ounces. The drainout charge is 22 ounces, but the method of checking the drainout charge on all "W" models is different from others, so the

following information applies to "W" models only.

All "W" type refrigerators are very accurately charged at the factory with 34 liquid ounces of Carrene. Should it become necessary to check the charge in the system, the following procedure should be closely observed:

Equipment: One 15-inch length of $\frac{1}{4}$ inch copper tubing with $\frac{1}{8}$ inch male fitting, bent to connect to condenser-radiator outlet. One 600 watt heater element in porcelain pendant socket with lamp guard and extension cord to be used as heater in evaporator and at the Carrene receiver. One clean, dry, narrow mouth 32-ounce bottle, one $\frac{1}{8}$ inch cap nut and bonnet, one charging funnel.

1. Make sure the unit has been in regular operation for at least six hours previous to making the check, and that the compressor dome is considerably warmer than the room temperature.

2. Turn off refrigerator.

3. Disconnect flare nut from union fitting where Carrene receiver is connected to the condenser-radiator outlet, and connect length of $\frac{1}{4}$ inch tubing to condenser-radiator outlet, so Carrene will flow into a narrow mouth bottle placed on the floor. Seal Carrene meter inlet with $\frac{1}{8}$ inch cap nut and bonnet.

4. Start compressor and vaporize the Carrene out of the system into the bottle. This procedure will take about one hour's time in a 75-80° F. room, and the compressor should run until the evaporator and Carrene receiver are quite warm. Use the heater unit on the bottom shelf only of the evaporator and allow it to warm up to about 110° F. Keep the heater away from the thermostat as high temperature may cause the bellows to open up.

After the evaporator is warm all over, feel the Carrene receiver and if it appears cold, place the heater alongside so as to vaporize any liquid Carrene in the receiver.

5. The Carrene "drain-out" should be 22 ounces. This drain-out charge should be replaced with 23½ ounces. The additional amount replaced is to take care of the Carrene lost when the unit is purged.

6. After the charge is checked, carefully reconnect the Carrene receiver to the condenser, being sure that the flare nut is tight.

7. Remove the purge core from the Carrene receiver.

8. Insert a $\frac{3}{16}$ inch copper tube which has a funnel soldered to its end and pour about half of the charge (12 ounces) of Carrene into the receiver.

9. Start the compressor and immediately stop it again. Do this several times and then pour the remainder of the Carrene charge into the receiver.

10. Permit the compressor to run continuously and purge in accordance with the procedure already outlined for purging.

SERVEL Silver Fleet

COMMERCIAL REFRIGERATING MACHINES

"Beauty is only skin deep" . . . but under the lustrous silver surface of these sensational new Servel units, you'll find a degree of performance, economy and noise-



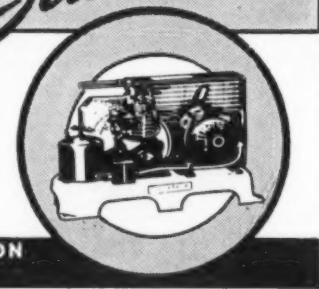
lessness never before available in low-pressure refrigeration. Write today for details. Servel, Inc. Electric Refrigeration and Air Conditioning Div., Evansville, Ind.

Add Our Experience to Yours . . .



Deliver Trouble-free Service
Throughout the world, in hundreds of thousands of installations, Copeland units are delivering economical, trouble-free performance. There is a Copeland condensing unit for every refrigeration and air conditioning need. Twenty-one years of refrigeration leadership. Write today for complete information.

COPELAND REFRIGERATION CORPORATION
Sidney - Ohio

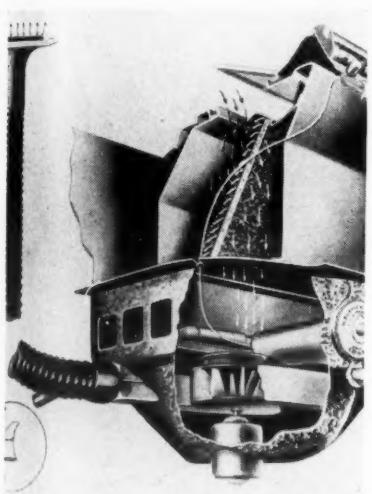


Air Conditioning

'40 Nash 'Weather Eye' Auto Air Control Is Visible To Driver

DETROIT — Developments in Nash's "weather eye" conditioned-air system for winter driving will enable the driver this year to see the "eye" which prevents changes in outside weather from affecting inside car comfort. The "eye" is mounted on top of the instrument panel near the windshield and takes its outside weather readings through the glass.

The car weather system with its filter, sirocco fan, rain shudder, and conditioning chamber, is located under the cowl. It draws in quantities of fresh outside air through the cowl ventilator then routes it to the rain shudder to remove excess moisture, then through a processed filter for purification, and then to a warming chamber where the air is



heated to the comfort level desired by the driver. A radio-like control dial is used to "set" the system to the desired conditions.

The system holds the interior of the car under slight air pressure, thereby preventing air from entering at any place except through the conditioner, and thus preventing drafts. The cars are warmed uniformly and there are no cold or hot spots in front or back seats. The air in the car constantly is being changed and, as a result, tobacco smoke, even when all passengers are smoking, is said to be taken from the car almost instantly.

To Discuss Conditioning As Industrial Aid

CHICAGO—Relation of air conditioning to industrial production efficiency will be a major topic at a conference to be conducted by the American Management Association at the Palmer House here, Nov. 15-16.

Theme of the conference will be how American industry can meet the problem of controlling unit costs through more efficient plant facilities as it becomes the world's remaining large-scale producer.

Officers from the Ordnance Department of the U. S. Army will outline the Army's plans for industrial coordination.

Subjects to be covered will include: building design as a factor in production efficiency; plant services and unit costs; "plants of tomorrow" in operation today; lighting for production; heating, ventilating, and air conditioning as factors in production efficiency; effects of environment on employee efficiency; and the effect of air conditioning on employee comfort, health, and efficiency.

Visits To Jobs Once Lost Profits Dealer In Air Conditioning

By James McCallum

GRAND RAPIDS, Mich.—If your prospect simply won't listen to your tale of the advantages of air conditioning, and insists on buying some substitute instead, don't give up hope. Just wait him out, for quite frequently he'll soon see the error of his ways and end up by becoming an air-conditioning customer after all.

One such situation was recently encountered by J. K. Richmond, who manages air-conditioning sales for Dyer Distributing Co., Fairbanks-Morse agent here.

The establishment in question was a small night spot on the outskirts of the city. Mr. Richmond originally got wind of the prospect through a checkup on building permits, and contacted the owner before the structure was even commenced.

But the contractor, it seems, had already sold the owner a "bill of goods" on the merits of the insulation which was being installed in the building, and had convinced him that no more protection from summer sun was necessary. So the job went through to completion with just this insulation to guard against the heat.

HE 'DROPS' BACK

But Mr. Richmond didn't give up hope. He kept dropping back to the club, and happened in one night when a goodly crowd was gathered, the temperature was a little too high for comfort, and the density of cigar and cigarette smoke was almost unbearable. The owner of the place readily admitted that something had to be done to relieve these conditions, and Mr. Richmond again saw success.

He argued eloquently for air conditioning, but it seems that an exhaust fan salesman had somehow beaten him to the punch and had convinced the owner that installation of such fan equipment was the proper solution to his cooling problem. Unable to change the prospect's mind, Mr. Richmond again went away to patiently bide his time.

He kept up his contacts with the night club owner, however, and continued to drop around occasionally to see how business was coming along. By this time summer was well on the way, and one night he stopped in for a chat with the club's proprietor when the outside temperature was up in the eighties and the air inside the building was several degrees hotter. Most of the patrons were mopping their brows, loosening their collars, and in general looking about as uncomfortable as they probably felt.

This time the owner, having finally realized that neither the insulation nor the exhaust fans were accomplishing the desired results, was really ready to talk business. So he asked Mr. Richmond to figure out some sort of a cooling system and let him know how much it would cost.

PROPOSAL IN POCKET

Instead of replying, Mr. Richmond casually pulled from his pocket a complete preliminary proposal for a well cooling job which he said would do the trick. He had been carrying this prospectus around for weeks, just waiting for an opportune moment to present it.

The prospect approved of the idea, and Mr. Richmond—after having thoroughly checked his estimates and calculations—received the "go ahead" on another job that he wouldn't have landed had he "thrown up the sponge" after the first rebuff.

Conditioners Add To Stores' Appearance



How a store air conditioner can be made to blend in with the interior decorations of the business establishment which it cools is demonstrated by the above two jobs installed by Everett Smith of the Kelvinator dealership in Milwaukee. The top picture, in which the conditioner has been fitted in with a beautiful job of paneling in the rear of a shoe store, is a prime example of how a conditioner can even help to beautify a store. In the other picture of a dairy bar the conditioner is at the right of the door, and has been finished in white to match store's decorative scheme.

Tiltz Puts Precipitron In Woolworth Store

SPRINGFIELD, Mass.—A 115-ton air-conditioning system combined with a "precipitron" to filter out airborne impurities has been installed in the F. W. Woolworth Co. store No. 1172 here under supervision of Tiltz Air-Conditioning Corp., New York City, Westinghouse distributor.

Two Westinghouse condensing units, each consisting of a compressor unit, a combined water-cooled condenser and liquid receiver, and necessary interconnecting piping and control devices comprise the mechanical conditioning equipment.

Bunkie Bankers Cooled

BUNKIE, La.—Unusual in that a cooling tower was used with such a small unit, a Westinghouse 5-ton air-conditioning system was recently installed by Avoyelles Trust and Savings Bank here. Equitable Equipment Co., distributor, made the installation in collaboration with the Johnnie Rush Radio Center of Alexandria, La., dealer in this area.

West Coast Cooling Firm Enlarging Offices

LOS ANGELES—To handle increased business in its air-conditioning and machinery divisions, Essick Machinery Co. has started construction of a 13,000-sq. ft. building across the street from its present location at 14th St. and Santa Fe Ave.

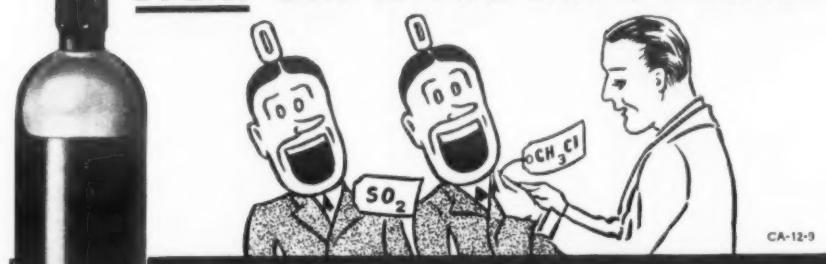
After the new building is completed, entire present quarters of the organization will be occupied by the air-conditioning division. This is the third expansion caused by increased business.

The company manufactures and sells evaporative-type coolers for both household and commercial use, both in the U. S. and abroad. Newman and Bryant Essick are partners in the organization.

Apparel Store Conditioned

BALTIMORE—New Baltimore quarters of Wilbur Rogers, Inc., women's apparel retailers, to be located at 105-107 W. Lexington St. through to 122 N. Liberty St., will be completely air conditioned.

EVERY DAY IS TAG DAY AT ANSUL



Ansul analyzes, and tags that analysis on, every Ansul cylinder every day. When you specify Ansul refrigerants you specify known, proved quality without exception.

ANSUL SULPHUR DIOXIDE METHYL CHLORIDE

ANSUL CHEMICAL COMPANY • MARINETTE, WISCONSIN

LET THE ANSUL JOBBER NEAR YOU SERVE YOU BETTER

Year-Around Controller Introduced By M-H

MINNEAPOLIS—A summer-winter controller which combines the functions of two controls in one unit, and is claimed to make installation simpler and less expensive, has been introduced by Minneapolis-Honeywell Regulator Co.

The controller, model L147, automatically governs the operation of both summer and winter cycles, making seasonal changes unnecessary, and saving service calls.

Amount of fuel consumed is directly in proportion to the actual demand on the boiler. The controller is permanently adjusted by the installer to maintain the minimum boiler temperature necessary to provide the domestic hot water supply. High limit aquastat also is permanently set by the installer, and functions only as a safety control or high-temperature cut-out.

During the summer the boiler is operated by the controller, but if the room thermostat calls for heat the boiler temperature will be increased to take care of the heating load.

Circuit arrangement of the controller is claimed to be ingenious. When the thermostat calls for heat, the circulator and burner start simultaneously, and normally continue in operation until the proper room temperature is reached. During this time, boiler temperature will increase just enough to satisfy the demand. Should the boiler temperature exceed the setting of the high limit aquastat, the burner will stop, but the circulator continues to work.

When the thermostat is not calling for heat, the burner will be operated by the controller in order to maintain proper boiler temperature to assure an adequate supply of domestic hot water. The circulator operates only when the room thermostat calls for heat.

Anaconda Copper Refrigeration Tubes

for difficult jobs!



Refrigeration and Air Conditioning

As shown by installations for various services in five big insurance buildings, and in scores of restaurants, taverns, shops, packing houses, cold storages, and industrial plants.

• All credited to the Automatic Refrigerating Co., Frick Distributors.

Now is the time to get figures on that cooling equipment you need. Write, wire or phone

FRICK CO.
WAYNESBORO, PENNA.
DEPENDABLE REFRIGERATION SINCE 1882

IT'S MIDWEST BUILT. IT'S BETTER BUILT

COMMERCIAL REFRIGERATORS

Two display case lines—"All-Porcelain" with deluxe features and "Leader" in Dulux—priced to give outstanding value plus a complete line of "Reach-in" refrigerators (13 to 68 cu. ft. capacity) should make MIDWEST your first choice!

Some Good Territories Still Available
Write or wire for Complete Information

MIDWEST
MFG. COMPANY • GALESBURG, ILL.

EXPORT SALES DIVISION: 330 S. WELLS ST., CHICAGO, ILLINOIS, U. S. A.

LARGEST THE HARRY ALTER CO.
1728 S. MICHIGAN AVE.
CHICAGO
WE SELL WHOLESALE
ONLY... WRITE FOR
CATALOG ON YOUR
STATIONERY.
TRY OUR INSTANT
SERVICE

**AND MOST
COMPLETE LINE
OF REFRIGERATION
AND AIR CONDITIONING
PARTS AND SUPPLIES IN THE U. S. A.**

World Wide



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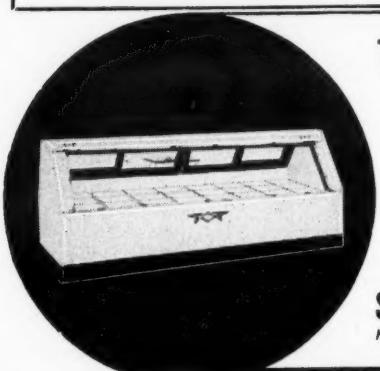
DENVER, COLO.

CANADA

EXPORT

Suite 772 General Motors
Bldg., 1775 Broadway.
—2258 LaSalle-Wacker Bldg.
—6432 Cass Ave.
—143 S. Alexandria.
—593-595 Arcade Bldg.
—1203 South 18th Ave.
—2211 Commerce St.
—1526 Ivy St.
—1127-31 Dundas St., London,
Ontario.
—Tecumseh Products Export
Dept., 1002 Palms Bldg.,
Detroit, Mich.

TECUMSEH PRODUCTS COMPANY, Tecumseh, Mich



THE PROFIT LINE FOR '39

Refrigerator and Compressor
sales go together. SHERER offers
a complete line of cases, coolers
and boxes to be sold with your
compressors.

Write for catalog and franchise
details, mentioning territory desired.

SHERER-GILLETT CO., Marshall, Mich.

Manufacturers of Refrigerated Display and Storage Equipment

MILLS COMPRESSORS for Commercial Use

Mills Novelty Company 4100 Fullerton Avenue • Chicago, Illinois

P-E-L-C-O Spells PROFIT Do You Have a GOOD Beverage Cooler Franchise?



Maintain volume and profit with the new
1939 Pelco line. NEW EXCLUSIVE SELLING
ADVANTAGES . . . NEW MODELS
. . . NEW DEALER HELPS. "Floating Ice"
and "Actionized Cold." We cordially invite
you to write.

PORTABLE ELEVATOR MFG. CO.
Refrigeration Division, Dept. A
BLOOMINGTON, ILLINOIS

Every Food Merchant A Prospect! For This New Self-Serve Produce Case

It's OPEN! The customer can
reach right in—no doors to
slide—and embodies a new
principle of refrigeration (Pat.
appl'd for).

Write for details

SANDERS BUTCHER SUPPLY CO.

2755 W. Fort St., Detroit, Mich.



A MINCO Multiple-Temperature Snap-Action Valve "A Precision Instrument"

For systems with more than one coil, operated
from one compressor unit, controlling differing
temperature on various coils. May be used with any
refrigerant except ammonia. For flooded as well as
dry gas types or any combination of either.

Any variety of units such as ice cream cabinets,
soda fountains, back bars, water coolers, candy counters, beer coils, storage
rooms, etc. may be connected up to a single compressor unit by the use of
AMINCO Multiple Temperature Valves. Adjustable from 20" of vacuum to
63 lbs. pressure. Differential 7 lbs. min. to 29 lbs. max.

A check valve (Aminco No. 1076 or 1077) should be used at the cooler
coils to prevent refrigerant from backing into them as the snap action
valve opens.

Free from bellows strain.

AMERICAN INJECTOR COMPANY
1481 Fourteenth Avenue
Pacific Coast Warehouse Stocks—Van D. Clothier, 1015 E. 16th, Los Angeles, Cal.

Commercial Service

Locating Gas Leaks & Correcting Other Common Carbonator Troubles Outlined

By Arch Black and Dean C. Seitz

Available

Editor's Note: Continuing their
discussion of carbonator installation
and service, Black and Seitz
in this week's instalment tell how
to locate CO₂ gas leaks, and list
other possible complaints and
suggest remedies.

Now available is the new Manual
SF-1, Soda Fountain Refrigeration,
which contains the material
published in the first instalments
of this series of articles. This
book sells for \$1.00 a copy, or
may be obtained free with a
26-weeks subscription to AIR
CONDITIONING & REFRIGERATION NEWS
for \$2.00. These prices are for
U.S.A. only.

Locating CO₂ Gas Leaks

CO₂ gas leaks can be easily
detected by following the procedure
outlined below.

When closing at night, advise the
customer to make a note of the
pressure showing on his gas pressure
gauge. Then close tightly the gas
regulator outlet valve, and the car-
bonated water outlet valve. This
operation isolates the carbonator.

In the morning ask the customer
to note the pressure on the gauge
again. If it has not dropped more
than 10 lbs. (which is the normal
absorption), the leak is in the fountain
or in the block tin leader line, the
gas tank, in fact, any place
except the carbonator.

If the pressure in the carbonator
has dropped 20 or 30 lbs., the leak
is in the carbonator.

To locate carbonator leaks, follow
the procedure below:

1. Make a solution of warm water
and soap and apply this solution
with a brush around the stem of the
CO₂ gas cylinder valve. If the leak
is detected at the valve stem, open
the valve farther until it rests on
its back seat, thus closing and pre-
venting any leak in the packing
around the valve stem. The leak
around the packing should also be
stopped by tightening up the pack-
ing nut.

2. Make certain that there is a
fiber washer where the gas
regulator joins the hose leading to the
carbonator and that this coupling is
likewise tight.

3. Make certain that there is a
fiber washer where the gas
regulator joins the hose leading to the
carbonator and that this coupling is
likewise tight.

4. Apply the soap solution to
every connection along the carbonator.
If there is a leak, a bubble
will form.

5. Leaks in gauges are sometimes
hard to locate. Put plenty of soap
and water on them and watch
closely.

6. Make certain that the back
pressure check valve closes tightly.
Remove the back pressure check
valve cap nut, lift out the valve,
wipe out, clean, and see that the
rubber seat is in good condition.

If a hose is used between the
gas regulator and the carbonator,
it should likewise be thoroughly
checked for leaks. Coat the entire
rubber hose with a soap solution.
If a leak occurs near the end, cut
off the leaky part and refasten the
hose with clamps.

The packing at the agitator shaft
should also be checked. If a gas
leak occurs here, turn the nuts up
tightly then back them by a half a
turn.

Other Common Troubles And Their Correction

In addition to CO₂ gas leaks,
there are other service problems
which arise on carbonators. In the
following paragraphs, some of the
major problems and their correction
will be explained.

Carbonator Does Not Start And Stop Automatically

When the carbonator does not
start and stop automatically, investi-
gate and correct the trouble as
follows:

1. See that there are no brooms,
boxes, or other obstructions prevent-
ing the free action of the lever.

2. Put a drop of oil on the bal-
ancing rod pivot screw.

3. See that the hoses connecting
the balancing ball to the carbonator
are straight. Sometimes these pieces
of hose get twisted when the
couplings are tightened and interfere
with free action. The seam in the
hose should run straight.

4. Clean thoroughly and place a
drop of oil on the pivot screws of
the automatic switch blade contact
and handle.

5. See that the contact and blade
contact in the automatic switch are
not corroded. Clean with fine sand-
paper or emery cloth.

6. Make certain that the hoses
are not clogged. If necessary, un-
couple them and blow through.

7. Sometimes the nuts holding the
electric switch to the bracket work
loose and the whole box housing
the electrical switch moves instead
of the switch tripping. Work the
balancing mechanism up and down
slowly and see that the electric
switch has a free and easy motion
and that it opens or closes before
the balancing lever strikes the upper
or lower stop.

8. If the motor does not run,
either the electric current is not
turned on, a fuse is burned out, or
a connection is loose.

9. Set the adjusting nut on the
trip rod which connects the bal-
ancing ball with the electric switch.

Peculiar Taste In Carbonated Water

1. If the carbonated water has a
peculiar taste immediately after
installation, it is probably due to white
lead getting into the water. The
remedy: allow several gallons of
soda water to be drawn off without
using.

2. Carbonated water may be con-
nected to brass or copper water
coils instead of block tin. The use
of copper or brass water coils will
frequently taint the water, giving it
a taste which is blamed on the
carbonator.

3. If the carbonator has been in
use for a long period of time, the
peculiar taste could be due to mud
in the bottom of the carbonator.
This mud or sludge came into the
carbonator over a long period of
time from the city water. The
remedy: disconnect the carbonator,
turn it upside down, remove the
bottom and clean out the interior.

4. CO₂ gas of inferior quality may
have an oily taste.

5. Inspect and make certain that
the strainer at the bottom of the
carbonator pump assembly is clean.

6. The peculiar taste may be due
to block tin lining in the carbonator
being punctured or damaged. If the
lining in the carbonator is damaged,
the best method is to ship the
carbonator to the manufacturer for
repair.

for
BETTER
SERVICE
EXTRA DRY
ESOTOO
V-METH-L
METHYLENE
CHLORIDE
VIRGINIA SMELTING CO.
WEST NORFOLK, VA.

WOLVERINE
Copper
REFRIGERATION
TUBING
IS
DRY
YOUR JOBS CAN
SUPPLY YOU
WOLVERINE TUBE CO.
2413 CENTRAL AVENUE DETROIT, MI.

KERO TEST
VALVES AND FITTINGS
The Standard of the
Industry
Kerotest Manufacturing Co.
Pittsburgh, Pa.

Fulco
gilt-edge ADJUSTABLE
REFRIGERATOR COVERS
for Prices
Cannot be surpassed for long life and general
usage . . . best quality covering with special
reinforcement at edges . . . made with our
special non-lump filler. Fits any refrigerator.
FULTON BAG & COTTON MILLS
Manufacturers Since 1870
Atlanta St. Louis Dallas New Orleans
Minneapolis New York Kansas City, Kan.

BRUNNER
Send for the New
REFRIGERATION CATALOG
Seven Models of Compressors
Fifty-eight Models of High-
sides from 1/4 H.P. to 15 H.P.
BRUNNER MANUFACTURING CO.
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Filtrine
Water Coolers—Filters
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Anaconda Copper
Refrigeration Tubes
Unusually long
lengths!
A polar bear and a small child are shown playing with a long tube.
THE AMERICAN BRASS CO.
FRENCH SMALL TUBE BRANCH
General Offices—Waterbury, Conn.

Dayton
V-BELTS
Silent, vibrationless, de-
pendable, long-lasting.
Powerful grip prevents
slippage. A nearby dis-
tributor carries a com-
plete stock for applica-
tions and machines.
THE DAYTON RUBBER
MFG. CO., DAYTON, OHIO
World's Largest Manufacturer of V-Belts



A Dehydrator that is really
Dry. Mueller Brass Co.
Dri-Drier.

MUELLER BRASS CO.
Port Huron, Mich.

ADD TO YOUR PRODUCT
THE REPUTATION OF
PENN Controls
Write for Catalog
PENN ELECTRIC SWITCH CO.
GOSHEN, INDIANA

Use CHICAGO SEALS
for seal replacements
A complete line in all sizes
CHICAGO SEAL CO.
20 North Wacker Dr., Chicago

GET PEAK PERFORMANCE
with SPORLAN
Controlled Performance VALVES

Manufacturers are invited to write for complete details regarding Universal Cooler refrigerating units.

Universal Cooler Corp., Detroit

BUNDY TUBING
Copper-Brazed Steel. Copper Coated Inside and Out. Sizes: $\frac{1}{8}$ " to $\frac{1}{2}$ " O.D.
BUNDY TUBING CO., DETROIT

Quikold BEVERAGE COOLERS
10 MODELS WRITE FOR CATALOG
S & S COOLERS LIMA, OHIO

The Most Accurate Control Valve for Small Capacity Systems
The "TK" Thermo Valve
Alco Valve Co., St. Louis, Mo.

For Information on Motors
FOR ALL TYPES OF
Air Conditioning and
Refrigeration Equipment
WRITE TO

Waerner Electric Corporation
541 PLYMOUTH AVE. ST. LOUIS, MO.

Manufacturers of
VEG-A-KRISP
Complete line of Meat and
Vegetable Display Cases.
Quillen Bros.
Refrigerator Co.
Indianapolis, Indiana



Dealers Tell What They Like (Or Dislike) About a 'Central' Reconditioning Plant For Used Boxes

(Concluded from Page 1, Column 3)
the dealer may buy the reconditioned box outright from the plant for the blue book price plus \$20.

Dealers who take boxes in trade and want nothing more to do with them can sell them to the plant for one half the blue book value. Many small dealers use this means to clear their trade-in stock, officials of the plant stated, because they sell only new models. The Philadelphia Electric Co., utility, sells all refrigerators taken in trade to the reconditioning plant at one half the blue book rate.

This utility is, however, cooperating in the plan to make good used boxes available to their customers. This fall they will give publicity to the plan by enclosing in their monthly bills an announcement to the effect that good used boxes are available at appliance dealers in the territory. Good used boxes to fit any pocket-book is tenor of the copy featuring this announcement.

The Electrical Association of Philadelphia, which is cooperating in the plan, has made a check of dealers who have made use of the reconditioning service and reports that dealers have found it "very satisfactory."

DEPT. STORE VIEWPOINT

In the Philadelphia area the largest accounts of the reconditioning plant are the big department stores, constituting around 50% of the total business. Some of these stores buy the reconditioned boxes outright, while others make use of the reconditioning service on their own trade-point.

At Gimbel's department store the policy is to buy the boxes outright. R. L. Goldstein of the basement appliance department at Gimbel's readily endorsed the plan. He said that his department had bought over 300 reconditioned boxes and had turned them over very rapidly, and stated that his department has used the boxes as a promotional item to create a replacement market. Many users of the reconditioned boxes buy new boxes later, he claimed.

In addition to the promotional value of the reconditioned refrigerators, there is a mark-up on resale that is above the store's requirement, said Mr. Goldstein, which makes a very worthwhile profit item. In commenting on service of the reconditioned boxes, he said that few complaints were received, and as service is taken care of by contract with the reconditioning plant, any service calls are referred to the plant.

GETS LOW INCOME CLASS

At the Philadelphia Gas Range Co.'s appliance store the plan is "working out very well." This dealer takes the used boxes in trade, turns them over to the reconditioning plant on the flat rate agreement. It is pointed out by this dealer that the plan was particularly successful because there had been a noticeable increase in low income buyers of electric refrigerators.

"The plan pulls down our costs in handling used boxes," the floor man-

ager stated, "and has given us a new profit item."

Not every dealer reported satisfaction with the plan. At the Electric Warehouse, household refrigerator dealer, it was reported that the plan "had not worked out as expected." Big complaint was that excessive service on the reconditioned boxes caused many complaints that hurt the sale of used and new boxes. As 50% of this firm's business involves trade-ins, it has decided to recondition all the boxes in its own service department.

T. M. Robertson, G-E dealer in suburban Philadelphia, has made good use of the reconditioning service and reports "excellent results." The superior job of reconditioning returns a good product for resale, it was said, and removed most of the "headaches from handling trade-ins."

N.R.D.G.A. REPORT COMPARED

Offering further proof that the plan is receiving the support of dealers, the Associated Refrigerator Plant has issued a comparison of statistics reported by their dealers. Andrew J. Asch, Jr., an official of the plant, has set up these figures in comparison with similar data on new refrigerators released by N.R.D.G.A.

The figures offer the comparison of dealer sales (dealers having refrigerator sales of from \$17,000 to \$34,000 per year were taken) in new and reconditioned refrigerators. It indicates, says Mr. Asch, the merit of rebuilt refrigerators from a profit standpoint.

New refrigerators sold by these dealers had a cumulative mark-on of 34.9%, the report reveals, while the mark-on for boxes reconditioned by the Associated Refrigerator Plant, Inc. was 44%. The mark-down at retail for new refrigerators was 6%, while the reconditioned boxes were marked down 1%. Gross margin on sales of new refrigerators by these dealers was fixed at 27.6%, and on reconditioned refrigerators the gross margin was said to be 42.5%.

Returns on new refrigerators amounted to 17.7% of the total sales by these dealers, while 10% of the reconditioned boxes were returns, it was claimed.

The great majority of the dealers surveyed in the Philadelphia area supported the claims of the reconditioning plant that the plan offered a profitable market for reconditioned boxes. At the present time, an average of 125 electric refrigerators a week are supplied to dealers.

Chicago Group Plans a 'Home Appliance Week'

(Concluded from Page 1, Column 1)
a program of semi-annual city-wide shows and promotions of electrical appliances in the spring and fall of each year, James M. Earle, president of the association, declared. These would furnish the nucleus of a year-around promotional program.

Mayor Edward J. Kelly of Chicago, at the association's suggestion, has proclaimed the week of the exhibition as "Home Appliance Week" in the city. At the luncheon at which the promotion was announced, attended by some 50 manufacturer, distributor, and utility executives, unanimous endorsement of the plan was voiced. Cooperation of the Chicago Association of Commerce was pledged by J. J. Maguire.

Ranco
COAST TO COAST!
There's a complete stock of
Ranco Household Refrigerator and
Commercial Controls near you.
Dependable jobbers throughout the
United States and Canada feature
Ranco products.

Ranco INC.
Columbus, Ohio, USA

THE BUYER'S GUIDE

53 YEARS OF SERVICE 1886-1939

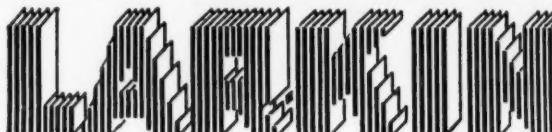
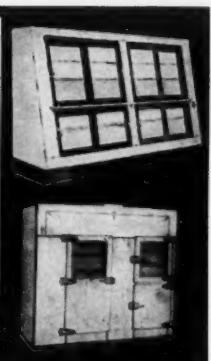
PERCIVAL Line meets EVERY NEED!

Includes Coolers, Reach-In Refrigerators, Top Type, Double Duty, Delicatessen, Dairy and Produce Display Cases and Percival Condensing Units.

Quality built; corkboard insulated; porcelain clad; beautifully streamlined. Cooling system is second to none.

Write for attractive prices, literature and Distributor's proposition.

C. L. PERCIVAL CO.
DES MOINES, IOWA



New Wall

Humi-Temp Units
will be Profit-Makers and
Customer-Winners for You!

These units are particularly suited for installation in display cases, small refrigerators and where overhead room is of prime importance—Compact construction—Adequate tube and fin areas provide ideal humidity conditions. Why lose sales and customers—when you can sell the Larkin Humi-Temp Units so easily?

See your Jobber or Write direct for Literature and Prices—Today.

LARKIN COILS, INC.

General Office and Factory
519 Fair Street, S.E.
ATLANTA, Ga.

New York Factory, 57 E. 11th St.



IMPERIAL CAPACITY BOOSTERS (Heat-X-Changers)

—with Thermek Heat Transfer Surface

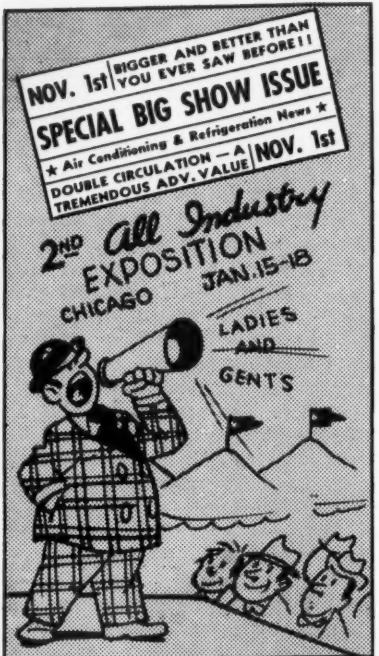
1. Raises back pressure of coil and increases compression efficiency.
2. Utilizes 100% of the coil surface.
3. Reduces friction in the tubing.
4. Eliminates oil scrubbing.

IMPERIAL BRASS MFG. CO., 565 S. Racine Ave., Chicago

IMPERIAL VALVES • FITTINGS • TOOLS • STRAINERS
DEHYDRATORS • CHARGING LINES • FLOATS

Ask your jobber for
Imperial Catalog Page
No. 54-B covering these
capacity boosters.





Refrigerators First In Rural Preference

ATLANTA—Electric refrigerators win the title of most-sought-after electrical appliance among rural customers on the lines of electric membership corporations in this state, reports Joe McGee, who has charge of Georgia Power Co.'s "farm and home" coach, used to demonstrate appliances in newly-wired rural areas.

"Individual interest" cards turned in by 919 persons attending 93 demonstrations in five rural electrification projects show the following preferences for appliances:

Refrigerators, 331; pumps, 284; roasters, 174; washing machines, 151; ranges, 132; food mixers, 105; I.E.S. lamps, 118; and fans, 101.

Sales efforts will be concentrated on the most popular appliances indicated by the survey, and these also will be featured in direct-mail advertising to rural customers.

CLASSIFIED ADVERTISING

RATES: Fifty words or less in 6-point light-face type only, one insertion, \$2.00, additional words, four cents each. Three consecutive insertions \$5.00, additional words ten cents each.

PAYMENT in advance is required for advertising in this column.

REPLIES to advertisements with Box No. should be addressed to Air Conditioning & Refrigeration News, 5229 Cass Ave., Detroit, Mich.

POSITIONS WANTED

MATURE MAN with exceptional experience both wholesale and retail, in developing and directing refrigerator organizations, is desirous of making a connection in western Pennsylvania as contact man for manufacturer with distributors, stores, or dealers; or as agent for manufacturer. At present employed. Box No. 1180, Air Conditioning & Refrigeration News.

SERVICE MANAGER capable of taking full charge of department. Experienced in handling field service personnel, repair shops, warehouse, shipping, office, either for national manufacturer or local distributor. Know every phase of the electrical appliance industry. Good organizer, best ability and character references. Interviews solicited. Box 1181, Air Conditioning & Refrigeration News.

FRANCHISES AVAILABLE

COMMERCIAL LINE refrigerator display cases, walk-in coolers, and refrigerators; also direct draw mechanically cooled beer coolers. Sell with Ehrlich Compressors or with any other make. Attractive discounts also financing arrangements to help sell. 70 years in business. Write for full information. EHRLICH REFRIGERATOR MFG. CO., St. Joseph, Mo.

BUSINESS OPPORTUNITIES

FOR SALE—Commercial refrigeration business and manufacturing equipment for complete line of condensing units. Interested inquirers write Box No. 1179, Air Conditioning & Refrigeration News for further data.

EQUIPMENT WANTED

CASH FOR your coin meters. Wanted: Any quantity with 15, 20 or 25-cents-a-day gears. Write at once and advise the condition and quantity for sale. State price you expect. Address Box 1156, Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

MANUFACTURER of $\frac{1}{2}$ ton "Freon" Window Type Room Air-Conditioning Unit has a limited supply of brand new 1939 models on hand. Will dispose of them to the trade for \$145.00—10% discount in lots of 10—20% discount in lots of 25. Write Box No. 1175, Air Conditioning & Refrigeration News.

WE HAVE about one hundred Frigidaire

Refrigerator Trade-In Methods To Be Aired

At Meeting of Electric League Heads

(Concluded from Page 1, Column 1) problems will be given extended consideration. Chairman of this session will be J. E. North, president of the Electrical League of Cleveland.

LOHR, KOHNSTAMM SPEAK

"Today's Problems in the Sale of Radio and Television" will be recounted by Major L. R. Lohr, president of National Broadcasting Co., following which F. R. Kohnstamm, sales manager of the merchandise department of Westinghouse, will discuss "Selling Traffic Appliances as a Major Interest of Our Industry."

"Lighting Progress and Possibilities for the Future" will be outlined by D. W. Atwater, manager of the commercial engineering department of the Westinghouse lamp division, and "Angles and Arguments That Will Help Sell Adequate Wiring" will be detailed by A. B. Smedley, district engineer for Anaconda Wire & Cable Co.

Panel discussions, open to league managers only, will take up the conference's second afternoon, and will continue throughout Oct. 6.

SESSION ON TRADE-INS

First of these, under the chairmanship of J. S. Bartlett, managing director of the Electric Institute of Washington, D. C., will discuss appliance promotion, including the present important problem of electric refrigerator trade-ins and the methods by which this is being met.

Also scheduled for consideration at the appliance promotion session are the application of Modern Kitchen Bureau activities in league centers, especially individual product campaigns; dealer relations and campaigns; meeting competition in the sale of ranges and refrigerators; appliance distribution channels and their relative effectiveness; sales training courses and the extent to which leagues can help members in their sales personnel problems; fair

compressors in assorted models (K-N-W-FW-A-etc.). These are not overhauled and are to be sold in an "as is" condition. Must be disposed of quickly. No reasonable offer refused. Box No. 1176, Air Conditioning & Refrigeration News.

AVAILABLE 29 used electric refrigerators and 21 used electric ranges. List furnished on request. PITTSFIELD COAL COMPANY, Pittsfield, Mass.

GENERAL ELECTRIC compressors and motors, Frigidaire compressors and Delco motors; brand new $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{1}{8}$ Hi Side units; complete with Square D low pressure or temperature controls. Low prices, money back guarantee. New Electricmatic water valves, type WRP $\frac{1}{2}$ "—lots of six—\$3.95 each. MARTIN SPECTOR, 520 East 20th St., New York City.

SPECIAL NEW Mullins evaporators in original cartons. Overall dimensions, 10 in. wide, $\frac{9}{16}$ in. high, 11 in. deep. Come packed 2 in each carton. These evaporators are less floats and are factory sealed. Prices as follows: One carton of 2, \$4.00; in lots of 10, \$3.50 per carton of 2; in lots of 25, \$3.00 per carton of 2. REFRIGERATION SURPLUS JOBBERS, 545 Woodland Ave., Cleveland, Ohio.

REPAIR SERVICE

DOMESTIC TYPE thermostatic controls reconditioned like new. Precision work by experts. Years of satisfied customers, among largest in the country. All work guaranteed. Try us and be convinced. The largest thermostatic repair service in the country. It's your guarantee. Prices on request. UNITED REPAIR CO., INC., 342 W. 70th St., New York City.

GENERAL ELECTRIC DRI and DR2 Monitor Top units exchanged, \$30.00 F.O.B. our factory. Send your defective unit. On receipt, we make immediate shipment of completely rebuilt, refinished unit with one year unconditional guarantee. Like new in every respect. Westinghouse and Servel hermetic units rebuilt and guaranteed. REFRIGERATION MAINTENANCE CORPORATION, 321-27 East Grand Avenue, Chicago, Illinois.

G.E. and Westinghouse hermetic units rebuilt with factory equipment. G.E. DRI-DR2—\$30.00; Westinghouse \$27.50; one year guarantee, prices on other models on request. Deal with the original hermetic unit rebuilders—REX REFRIGERATION SERVICE, INC., 2226 S. State St., Chicago, Ill.

CONTROL REPAIR service. Your controls repaired by expert mechanics, with special precision equipment. Supervised by graduate engineers. We stress perfection and dependability before price. One year guarantee on domestic controls. Any bellows operated device repaired. HALECTRIC LABORATORY, 1793 Lakeview Road, Cleveland, Ohio.

PATENTS

HAVE YOUR patent work done by a specialist. I have had more than 25 years' experience in refrigeration engineering. Prompt searches and reports. Reasonable fees. H. R. VAN DEVENTER (ASRE), Patent Attorney, 342 Madison Avenue, New York City.

trade law experience; home shows vs. electrical shows as appliance promotional media; effectiveness of permanent exhibits in appliance sales; and how to conduct and evaluate appliance saturation surveys.

Air conditioning and commercial and industrial electrification will be the topics of a second panel discussion on the afternoon of Oct. 5, under chairmanship of F. L. Hockensmith, manager of the Electrical Development League of Southern California.

Topics scheduled for consideration at this session include special problems in the promotion of air conditioning; and attic and window fans as partial air conditioning.

WESTON ON FINANCING

Lighting and wiring promotion will be considered at panel discussions on the morning of Oct. 6, with Mr. North as chairman of the first panel, and G. W. Austen, manager of the Electric Service League, Inc. of Toronto, heading the second. Afternoon sessions will be devoted to organization and management problems, including new developments in financing of appliance paper, under chairmanship of G. W. Weston, secretary-manager of the Electric Association of Kansas City, and to the league's annual business meeting, at which reports of officers and divisional chairmen will be made and officers for 1940 will be elected.

Heads Appliance Group



MATT WILLIAMS

CINCINNATI—Matt Williams of Crosley Distributing Corp. has been elected president of the major appliance division of the Cincinnati Electrical Association for the coming year. He served as vice president of the group last year, and also was president of the radio division of the association.

Other major appliance division officers for the 1939-40 term are: Harry Knodel of Harten-Knodel Distributing Co., vice president; Carl Haller of Graybar Electric Co., secretary; and John S. Kelley, Jr. of Kelley-Mason Co., treasurer.

Oakland Dealers Bar 'Combination' Deals

(Concluded from Page 1, Column 5) confidence in price structures, discount one-price principle in merchandising, and lead to unbridled competition among manufacturers and retailers, and

"Further resolved, that we will not handle any combination offer on refrigerators, washing machines, irons, stoves, or radios unless such offer has first been submitted to the association and approved by the association, and

"Further resolved, that for the purposes of this policy, the phrase 'combination offer' means the offer with an appliance under a 'free' or 'one price' plan of any merchandise of any kind or description which is normally sold by retail merchants, and

"Further resolved, that due notice of this action by this association be given to all manufacturers and wholesalers of appliances serving the members of the association."

At the meeting, Secretary Wolf also was instructed to take immediate steps to secure compliance to community credit policy restrictions on the use of "no down payment" in advertising, and on the advertising of contract periods longer than two years.

This action is designed to curb activities of some few stores in the territory who are reputedly advertising appliances on terms of "nothing down" and "three years to pay."



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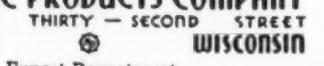


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